Distance in the eye of the beholder

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Distance in the Eye of the Beholder

An exploration of the nomological network of psychic distance

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"I wish this story were different. I wish it were more civilized. I wish it showed me in a better light, if not happier, then at least more active, less hesitant, less distracted by trivia."

– The Handmaid's Tale, by Margaret Atwood (1985)

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Tijd voor ontspanning!

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Chapter 1

General introduction

"perceived psychic distance is influenced by a complex array of factors and cannot reliably be approximated by cultural differences alone."

– Hakanson and Ambos (2010, p.207)

"A consensus appears to have emerged, suggesting that the more abstract forms of distance, such as psychic distance, should be considered in terms of individual-level perceptions of distance rather than with national-level indices based on secondary sources. If such is the case, then we should seek to understand the factors that shape these individual-level perceptions and thereby understand when, how, and why they might deviate from the traditionally employed national-level indices. These issues have not been discussed or explored to any significant extent in the current IB literature."

– Baack et al. (2015, p.952)

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PRIOR research has established that distances between home and host countries affect multinational enterprises' (MNEs) ability to establish legitimacy (Kostova and Zaheer, 1999; Xu and Shenkar, 2002) and succeed in foreign locations (O'Grady and Lane, 1996; Pedersen and Petersen, 2004; Sirota and Greenwood, 1971). Since larger distances are associated with greater uncertainty, they shape the decision to enter a host market, i.e. the location choice (Kogut and Singh, 1988), as well as associated levels of resource commitment, i.e. the mode of entry (Hosseini, 2008). Conversely, home-host distances are also related to more market opportunities, portfolio diversification, learning opportunities and synergies (Stahl and Tung, 2015; Stahl et al., 2016). The notion of distances therefore plays a crucial role in our understanding of International Business (IB) dynamics (Beugelsdijk et al., 2018b).

Researchers have for long investigated how country-level and non-perceptual factors like cultural, administrative, geographic, or economic distances influence firms' international expansion (Cuervo-Cazurra and Genc, 2008; Ghemawat, 2001; Roy and Oliver, 2009). However, such factors do not capture the unique characteristics of decision makers which also influence the decisions they make. International investment decisions are made by people, not organizations (Daft and Weick, 1984), and are therefore affected by systematic heuristics and biases which should also be taken into account. Individual-level factors have attracted less attention in the academic literature, in part because of major theoretical and methodological challenges (as developed in Chapter 2). Developing our understanding of how managers process a vast array of information to form perceptions of distance towards host locations, of how they interpret this perceived distance, and of why they do not consider the same markets to be attractive, is therefore still a major avenue for future research.

Given the mixed empirical findings on the role of distance in international business (Tihanyi et al., 2005; Beugelsdijk et al., 2018b), I follow Dow and Karunaratna's (2006) suggestion to look at the perceptual factors inflencing location choice and explore the concept of psychic distance. This

distance is inherently perceptual and therefore ideal to study key decisions in international business. Moreover, there are reasons to believe that psychic distance is more than the reflection at the individual level of other types of distances. It also incorporates managers' personal characteristics, experiences, heuristics, and cognitive biases and is thus critical to understand macro outcomes of individual decisions such as firms' strategies and performance (Bobbitt and Ford, 1980; Bourgeois, 1980). Therefore, I hope in this thesis to improve our understanding of the nomological network of psychic distance: its distinguishing characteristics, constitutive dimensions, antecedents, and consequences.

Investment decisions are often based on inaccurate representations of foreign market environments and may sometimes rely on little rational ground (Ariely, 2008; Kahneman, 2003; Simon, 1979), because managers can neither collect nor process all available information (Aharoni, 1966). Managers' resources (time and funds) and cognitive abilities are limited (Simon, 1957). They are therefore constantly under the threat of information overload and must rely on shortcuts to reduce the amount of effort required to make a decision (Shah and Oppenheimer, 2008). Their search for evidences is thus influenced by their initial beliefs, and only a fraction of the relevant information reaches them. This information is likely to be biased and distorted, and yet the ease with which information is accessed may create a false sense of comprehensiveness and accuracy.

Decisions rely on decision makers' mental maps (Bargh and Chartrand, 1999; Lamb et al., 2011; Wiedersheim-Paul et al., 1978). Decision makers have preconceptions about locations (and cultures) resulting from their life and work experiences. They are also more or less open to new experiences and have varying degrees of tolerance for uncertainty. How they see the world and the decisions they make depend on their perceptions (Ellis, 2011; Tversky and Kahneman, 1981), cognition (Brand et al., 2006; Duhaime and Schwenk, 1985; Simon, 1979), and preferences (Pfister and Bohm, 2008). Perceptions, cognition and preferences are all shaped by heuristics and biases intervening when decision makers gather information and interpret it to form

a judgment. It follows that managers are not equally sensitive to various kinds of distances. They may put more weight on different characteristics and therefore perceive differences where others do not. They may also value some differences positively while other managers value them negatively. Therefore, macro-level differences do not have the same impact on everyone because they are perceived through filters and prisms unique to each individual. These filters and prisms shape how one sees the world, how one interprets it, and thus the decisions one makes accordingly.

Availability heuristics, recency illusions, and mere exposure effects determine which locations are noticed by decision makers and which locations are ignored. Availability heuristics is the belief that if occurrences of a phenomenon come easily to mind, this phenomenon is likely to be true and to repeat: "if I come up with examples easily, then it is true". Recency illusions is the belief that what has been noticed recently is recent: "I have found out recently about this, so it is a recent phenomenon". Finally, the mere exposure effect (Bornstein, 1989; Zajonc, 2001) states that repeated exposure to a phenomenon (or location) makes this phenomenon more familiar, and that this feeling of familiarity makes people develop a preference for this phenomenon because they tend to avoid the unknown: "I prefer this because I am familiar with it". Together, these cognitive heuristics and biases explain why some locations will be more salient to, and preferred by, some decision-makers and not others. Managers will be more likely to consider a location if it has been prominently featured in the medias for the last few months, if it comes up during informal discussions among colleagues or friends, if it is the topic of a conference or seminar, or if it is the last place they visited in vacations. All these examples pertain to specific individual experiences which are not necessarily driven by macro-level factors.

Obtained information is *"processed, altered, and complemented by the observer's cognition"* (Hotho, 2009, p.32). Looking at the same data, managers with diverging interests would likely come to different conclusions because they give different weights to each piece of information. Individuals develop different views about locations and distances because of different experiences

and preferences, selective perception and inattentional blindness. Managers might perceive problems as less serious in locations they favor. They may also ignore or dismiss as irrelevant evidence contradicting their expectations. Indeed, people tend to weight more heavily arguments supporting their initial interests, beliefs, attitudes, and values (Tsang, 2004; Walsh, 1995) because of a confirmation bias (Baack et al., 2015). Another bias likely to affect perceived difficulties of investment decisions is managerial overconfidence (Barber and Odean, 2000, 2001; Odean, 1999; Oskamp, 1965; Skala, 2008) and hubris (Roll, 1986). Overconfidence might stem from a tendency to attribute success to competency and failures to luck (Taylor and Brown, 1988). It also arises from the need to reduce anxiety in high-stakes and complex decisions like Foreign Direct Investments (FDI). Unrealistic optimism (Weinstein, 1980) is also accentuated when outcomes are perceived as more controllable and when individuals are more committed to their achievement.

Managerial heuristics and biases resulting from bounded rationality are therefore crucial to account for locations choice decisions, in addition to macro-level and non-perceptual types of distances. The localized selection and distortion of information and managers' beliefs grounded in their personal experience and vicarious learning constitute the micro-foundations of psychic distance. Psychic distance thus captures information potentially relevant to explain international expansion, beyond the information already reflected in other kinds of distances. Perceptions are important to investigate because they can have implications on the alternative managers consider and prefer.

The current state of literature in international business does not provide clear conceptual delineations of the concepts of psychic and cultural distances. However, distances are often treated as equivalent to each other, in their effects and sometimes even in their constitutive dimensions. They are thus often considered interchangeable. The evolution of the concept of psychic distance since its inception by Beckerman (1956) illustrates these risks of conceptual confusion. While psychic distance used to be explicitly defined as individual and perceptual, it has progressively been equated to country-level differences (Johanson and Vahlne, 1977) and considered as no more than a synonym of

cultural distance (Kogut and Singh, 1988). Recent developments however have contributed to highlight its subjective nature, showing how cognitive biases can impact its appreciation (Baack et al., 2015). Thanks to the insights from psychology, psychic distance is now being revisited as researchers take more and more into account the influence of perception and cognition.

A prominent model for internationalization in international business is the Uppsala process model (Johanson and Vahlne, 1977), which introduced the concept of psychic distance to international business. Following Johanson and Vahlne (1977), this school defines psychic distance as: *"the sum of factors preventing the flow of information from and to the market. Examples are differences in language, business practices, culture, and industrial development."* (p.24).

The reasoning behind the Uppsala internationalization process theory in terms of increasing psychic distance is both logical and intuitively compelling: managers being risk averse, they favor locations they feel familiar with in order to reduce the uncertainty associated with doing business abroad. A key assumption in this reasoning is that unfamiliarity and perceived risks grow with distance: the larger the differences, the larger the difficulties, the lower the probability of selecting a location and committing more resources to it. The internationalization process model relies thus on learning to explain international expansion patterns. Firms are expected to start with locations requiring little learning and appearing as less uncertain, that is, in similar (often neighboring) countries. They are also expected to avoid countries considered distant (Engwall and Wallenstal, 1988; Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977).

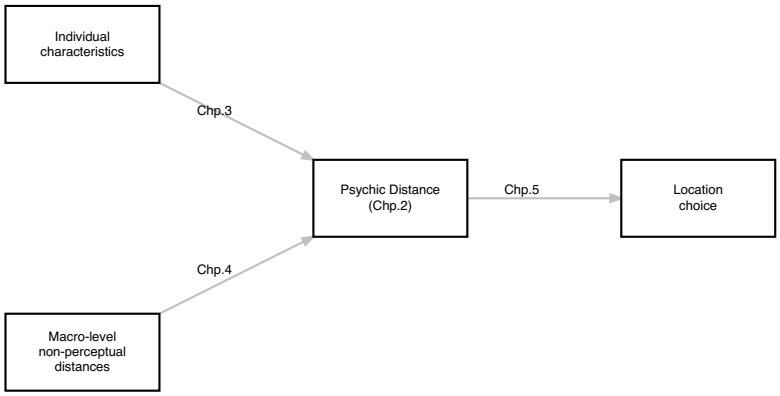
However, most internationalization theories, including the Uppsala model, fail to account for internationalization patterns observed empirically (Hakanson and Kappen, 2017). According to Shenkar (2001), *"Support for the Scandinavian thesis has been limited […]."* (p.520) Whether the internationalization process model does not explain accurately expansion patterns because of the limitations of previous academic studies or because

of new forms of internationalization remains an open question. In this dissertation, I investigate the possibility that the Uppsala school was right to rely on psychic distance to explain internationalization sequence patterns, but that the way the concept was operationalized and progressively redefined hampered scientific progress in the field. More specifically, I argue that the focus on objectively measurable country-level differences like cultural distances (Kogut and Singh, 1988) and the relative disregard for the subjectivity inherent to decision making processes prevented researchers from providing compelling empirical evidences consistent with their theory-driven expectations.

Indeed, while being explicitly defined as individual and perceptual at first (Beckerman, 1956), the concept of psychic distance has been progressively overlapping cultural distance to the point that they were considered synonyms (Kogut and Singh, 1988). Now, a distance can be large (and thus associated with a high risk) at the country-level (e.g., between the USA and China), and yet perceived as much smaller at the individual level by some managers (e.g., a biracial American manager who spent her childhood in Beijing). The predominance of macro-level distances means a disregard of the individual level, which could be a chief reason why empirical results in internationalization studies remain largely inconclusive (Tihanyi et al., 2005). Another possible weakness of the process model is the assumption that the larger the difference, the higher the perceived risk (Stahl et al., 2010). Although this assumption is intuitively compelling, the positive relationship between difference and difficulty remains an open empirical question.

This thesis aims to address the lack of clear delineation between psychic distance and cultural distance by sketching the nomological network of psychic distance, in order to highlight and concretize its distinction with cultural distance. As Cronbach and Meehl (1955) argue: *"Scientifically speaking, 'to make clear what something is' means to set forth the laws in which is occurs. We shall refer to the interlocking system of laws which constitute a theory as a nomological network. […] 'Learning more about' a theoretical construct is a matter of elaborating the nomological network in which it occurs, or of increasing the definiteness of the components."* (Cronbach and Meehl, 1955,

Figure 1.1. Model



p.290); and *"To validate a claim that a test measures a construct, a nomological net surrounding the concept must exist."* (Cronbach and Meehl, 1955, p.291) Therefore, a proper understanding of the concept of psychic distance (and how it differs from cultural distance) requires a thorough investigation of how it relates not only to other concepts of distances, but also to other concepts of interest to scholars in International Business.

The goal of this thesis is to delve into the nomological network of psychic distance to sharpen our understanding of this concept and how its revaluation could contribute to a better understanding of international investment decision-making processes. This is represented in the model in figure 1.1.

This dissertation relies on two sources of information to investigate these questions. The second chapter is a content analysis of the *Journal of International Business Studies*. It focuses on its evolution since the 1970s and results in specifying the four key characteristics of psychic distance: individual, perceptual, dynamic, and asymmetrical. The third, fourth and fifth chapters build on data from the X-Culture project, a global virtual team project set in higher education created by Vasyl Taras. For eight weeks, participants were tasked to write a business plan for a multinational firm looking for business opportunities in a market in which it was not yet present. This collaborative environment was designed to resemble a

professional corporate environment, mitigating to some extent issues related to the reliance on students (Bello et al., 2009; Schwartz, 2007; Stahl et al., 2010). What is exceptionally fruitful for my doctoral research is that before the project, once they know which nationalities will be on their teams but before they start working with them, each participant individually has to assess how different they think individuals from these cultures are (ex-ante psychic distance as perceived differences-PDR) and how difficult they think it will be to work with people from these countries (ex-ante psychic distance as perceived difficulties-PDC). This setting allows me to investigate two different dimensions of psychic distance: perceived differences and perceived difficulties. Overall the participants come from 44 different countries. Such a diverse sample surveyed ex ante proves highly valuable: participants assess psychic distance based solely on the countries of origin of their teammates and are thus not tainted by their teammates' other characteristics (dominant personality traits, proficiency in English, etc.). In Chapter 3, I transform these individual scores into dyadic, country-level scores. In Chapter 4, I use these scores to challenge a common assumption in international business: non-perceptual, country-level types of distance, such as cultural distance and geographic distance, are major drivers of country-level psychic distance scores. In Chapter 5, I include the psychic distance scores I calculated in Chapter 3 to the gravity model of trade to explain outward foreign direct investment (FDI) stock.

The remainder of the thesis is organized as follows. I examine the concept of psychic distance historically (Chapter 2), its micro- and macro-level constituents (Chapter 3), its macro-level antecedents (Chapter 4) and finally its consequences on location choice (Chapter 5). Each chapter of the thesis addresses specific questions which relate to a different aspect of the nomological network of the concept of psychic distance. In this thesis, I focus on psychic distance as perceived differences (PDR) and on psychic distance as perceived difficulties (PDC). They are individual perceptions of differences and difficulties towards nationals from different host countries, aggregated at the country level.

Chapter 2 presents a lexicographic and a content analysis which aim at disentangling psychic distance and cultural distance regarding their definition, their operationalization, their applications, and their relationship with one another. The main goals of this chapter are to achieve concept clarity (Suddaby, 2010) and discriminant validity (Churchill, 1979; Nunnally and Bernstein, 1994; Schwab, 1980), in order to make explicit what is specific to each concept (Podsakoff et al., 2016).

In **Chapter 3**, I proceed as follows: using X-Culture individual data, I calculate dyadic psychic distance scores with varying sets of antecedents (macro- and individual-level characteristics while controlling for team characteristics since the setup is global virtual teams) and aggregate them at the country level to investigate the incidence of taking into account different levels onto the variation of the psychic distance scores I obtain. I explore how including personal characteristics of the respondents, team properties, and/or country dummies (dyads) influences the dyadic psychic distance scores. The dyadic psychic distance scores I obtain are asymmetrical as in Hakanson and Ambos (2010), and allow me to distinguish between two different facets of psychic distance (perceived differences-PDR and perceived difficulties-PDC).

In **Chapter 4** I tackle two assumptions commonly held in the international business literature: I gather that psychic distance is not a unidimensional concept (Stottinger and Schlegelmilch, 1998), and that its antecedents are not restricted to macro-level, objective distances. I test to what extent considering that an individual-level, perceptual distance only has macro-level, non-perceptual differences as antecedents is a valid assumption.

In **Chapter 5**, I investigate whether different types of distance ((1) cultural distance and psychic distance, (2) as PDR-psychic distance as perceived differences and (3) as PDC-psychic distance as perceived difficulties) have different consequences on MNE activity. I investigate this in the context of outward bilateral FDI, as proxy for MNE location choice. I examine the extent to which my psychic distance scores (PDR-psychic distance as perceived differences, and PDC-psychic distance as perceived difficulties)

aggregated at the country level explain patterns of outward foreign direct investment using a panel data estimation technique on the gravity model (Anderson, 1979a; Leibenstein, 1966).

1

Chapter 2

The conceptual evolution of psychic distance in International Business

CHAPTER 2 presents a lexicographic and a content analysis which aim at disentangling psychic distance and cultural distance regarding their definition, their operationalization, their applications, and their relationship with one another. The main goals of this chapter are to achieve concept clarity (Suddaby, 2010) and discriminant validity (Churchill, 1979; Nunnally and Bernstein, 1994; Schwab, 1980) to make explicit what is specific to each concept (Podsakoff et al., 2016).

2.1 Introduction

The number of distance studies has increased a lot over the last few decades (Beugelsdijk and Mudambi, 2013). This is especially true for psychic (Johanson and Vahlne, 1977) and cultural distance (Kogut and Singh, 1988). Such a rapid growth, driven by the work of multiple teams often working in parallel, comes however with its own challenges. As a concept is more frequently used and applied in a greater variety of contexts, it faces the risk of what Suddaby (2010) calls "drift": *"When different researchers apply an existing construct to a new empirical context, they often change the meaning of the term, however slightly. Over time and over multiple empirical applications, the definition of a construct tends to drift…"* (Suddaby, 2010, p.348).

This notion of drift is also similar to what Podsakoff et al. (2016) call conceptual stretching, defined as the extension of the number of cases to which a conceptual definition applies without changing the set of attributes used to define the concept. Such a conceptual development often results in a term having different meanings for different communities (homonymy) or the same meaning as other terms (synonymy). This constitutes a threat to the discriminant validity of constructs (Churchill, 1979; Nunnally and Bernstein, 1994; Schwab, 1980) which are the building block of our theories (Bacharach, 1989). The lack of conceptual clarity and construct validity also makes scientific communication less efficient and jeopardizes the scientific accumulation of knowledge (Locke et al., 2012; Molloy et al., 2011; Suddaby, 2010).

The rapid evolution of the concept of psychic distance has resulted in such a drift that it now undermines both conceptual and theoretical advances in the field (Aquino and Thau, 2009; Blalock H. M., 1968; Le and Singleton, 2010; Morrow, 1983; Popper, 2002; Singh, 1991; Tepper and Henle, 2011). While psychic distance and cultural distance have featured prominently in IB literature, there is no consensus on a clear definition of either one, nor on what makes them different. As a consequence, these concepts appear to be used interchangeably and appear to have different meanings to

different authors. Over time, psychic distance has been conceived as distinct from cultural distance (e.g. Beckerman, 1956, considered psychic distance unequivocally perceptual and individual level), then used as a synonym of cultural distance (Kogut and Singh, 1988), to become distinct again (Baack et al., 2015; Hakanson and Ambos, 2010). Through the decisive inspiration from psychology (Baack et al., 2015), psychic distance has been more and more conceived as the product of individual biases. The confusion due to miscommunication in the academic community is apparent in the fact that some scholars see cultural distance and psychic distance as distinct concepts and thus develop different streams of research around them (Baack et al., 2015; Hakanson et al., 2016) while others consider them as equivalent (Kogut and Singh, 1988; Sethi et al., 2003; Yeniyurt et al., 2009). It happens that the two concepts of cultural distance and psychic distance (through its perceptual aspect) are semantically merged: for instance, some studies mention perceived cultural distance (Suanet and van de Vijver, 2009; Galchenko and van de Vijver, 2007; Cheng and Leung, 2013), while others view perceptions as a defining characteristic of psychic distance.

These confusions between different types of distances blur out our understanding of their respective antecedents, correlates, or consequences (Podsakoff et al., 2016, p.166) and may explain why prior studies report inconsistent results (Tihanyi et al., 2005). The purpose of this chapter is to address these issues by clarifying the concept of psychic distance and improving its construct validity. Achieving this goal requires first to investigate how psychic distance was defined and operationalized in the literature over the years. It also requires studying how this concept is related to potential antecedents, correlates, and consequences.

To achieve this goal, I rely on a comprehensive lexicographic analysis and content analysis of the 47 years of publications in the *Journal of International Business Studies*. With 1,073 papers dealing explicitly with at least one type of distance, this corpus is large and rich enough to attempt a synthesis. Building on this analysis, I discuss the historical development of psychic distance, more specifically in comparison to cultural distance, the

concept of distance the most widely used in the literature. A systematic comparison of published definitions highlights the conceptual differences distinguishing the two terms. I will not enter a conceptual discussion about what the "correct" definitions of psychic distance and cultural distance are. Instead, I will examine in what different ways the concepts have been used and interpreted over time, in order to come closer to a consensus-based understanding of what sets psychic distance and cultural distance apart. I also infer from these conceptual differences how their operationalization should differ. Finally, such conceptual and operational differences affect not only their relationship to each other, but also to other kinds of distances and to other variables of interest. A good definition should identify precisely what is inherent and specific to each concept (Podsakoff et al., 2016) to avoid the concept being misused by referring to a different phenomenon (Podsakoff et al., 2016; Sartori, 1984).

This chapter is organized as follows: first, I will explain and justify the methodology I used. Then I proceed with the content analysis, covering how the concept of psychic distance is defined, characterized, and operationalized relative to cultural distance. I also show how it relates to other key IB phenomena (e.g. other types of distance, location choice, mode of entry). Finally, I discuss the results, the contributions, and the limitations of this study, delineating avenues for further research as well as what you will find in the subsequent chapters of this dissertation.

2.2 Methodology

2.2.1 Data source and analytical technique

Three major techniques allow researchers to synthesize the literature: meta-analysis, lexicographic analysis, and content analysis. Meta-analyses aggregate all available relationships in a given topic domain to produce overall estimates of relationships and estimates conditional on particular moderators (Beugelsdijk et al., 2018b). Unfortunately, meta-analyses only combine statistical (i.e. empirical) results and do not systematically process

theoretical developments which still rely on researchers' expertise (Bobko and Roth, 2008). In addition, the reliability of the results they report is highly dependent on construct validity, the number of replications, and their comparability (Dalton and Dalton, 2008; Kohler et al., 2015). These limitations make a meta-analysis ill-suited to serve the purpose of this chapter, since the construct validity and comparability of psychic distance across studies is the question I am seeking to investigate. In addition, I am interested in the theoretical development of the concept, and thus need a systematic way to process textual data.

The two other techniques, lexicographic analysis and content analysis, are two different types of textual analyses (i.e., their object is to analyze texts). Lexicographic analyses count word occurrences and co-occurrences in sentences, paragraphs, or documents. This method offers several advantages. First, it can process very large corpuses of text and allows an exhaustive and systematic analysis and statistical synthesis of their content thanks to Computer-Assisted Text Analyses (CATA). Second, there is little room for researchers' discretion and bias: once the corpus and dictionaries (i.e. group of words created by the researcher) are documented, the results are perfectly replicable (Duriau et al., 2007, p.22). Now, lexicographic analyses lose in depth what they gain in breadth: the nuance and richness of the content is lost when it is translated into numbers to allow statistical analyses.

Content analysis goes beyond the mere word count characteristic of lexicographic analysis in that it allows to investigate how groups of words reveal underlying themes. For instance, co-occurrences of keywords can be interpreted as reflecting association between the underlying concepts (Huff, 1990; Weber, 1990). Content analysis relies on the researchers' interpretation and manual coding of the texts analyzed. This approach has the advantage of allowing the researcher to capture otherwise difficult to observe patterns of thoughts and reasoning such as values, intentions, attitudes and cognition (Carley, 1997; Kabanoff, 1997). It suffers however from the handicap of subjectivity, only partially mitigated by intercoder reliability tests. Since the 1980s, textual analysis has been used in several studies published in the

Journal of International Business Studies already (Hoffman and Gopinath, 1994; Mascarenhas, 1986; Suzuki, 1980; Tsui-Auch and Mollering, 2010; Zhao et al., 2014), including on academic articles (Albaum and Peterson, 1984; Chidlow et al., 2014; Fayerweather, 1994; Leonidou and Katsikeas, 1996; Liang and Parkhe, 1997; Stahl and Tung, 2015; Welch et al., 2011). However, it has not been used for the systematic investigation of how the concepts of psychic distance and cultural distance have evolved (in terms of definitions, operationalizations, and applications) since their first appearance in the leading journal of the field. Content analysis is subject to the interpretation the author has of the different paragraphs retrieved by the software.

I combine lexicographic and content analyses to benefit from the complementarity of their respective strengths and weaknesses. Such a combination enables researchers to collect all of the segments mentioning any expression (e.g., "psychic distance") from a corpus of text (e.g., 47 years of publications in the *Journal of International Business Studies*), statistically analyze the strength of their relationship to other expressions over time, and then to read and code the retrieved segments. The data collection process is thus thorough and free from the author's selection and omission biases. Yet the analysis benefits from the researchers' ability to process and account for the richness and nuances of the raw materials. As Duriau et al. (2007) explain: *"At one level, the manifest content of the text can be captured and revealed in a number of text statistics. At a second level, the researcher is interested in the latent content and deeper meaning embodied in the text, which may require more interpretation."* (Duriau et al., 2007, p.6)

2.2.2 Analytical procedure

The academic literature about International Business is the most appropriate corpus of text to study the evolution of the concept of psychic distance. Indeed, while this concept first appeared in economics (Beckerman, 1956), psychic distance gained prominence in the international business literature (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977), and scholarly work is likely to provide great details about both

conceptual and methodological developments. Definitions, relationships with other concepts, and operationalization should be systematically discussed and associated with the term. Within this literature, I decided to focus on the *Journal of International Business Studies* because this journal is the most influential journal in the relevant field.

I seek to investigate psychic distance vis-à-vis cultural distance in order to clearly distinguish them from one another along four points of interest: how they are defined; what they are applied to; how they are operationalized; how they are related to one another. I study the full texts of papers to address these questions. I proceed in four steps:

Step 1: Retrieving and preparing the documents. The first step is to collect all that was published in the *Journal of International Business Studies*, including not only articles, but also research notes, introductions, editorials, etc. This represents 1,886 usable pdf documents. Table 2.1 breaks down per decade the different types of publications included in the analyses. After retrieval and classification by year of publication of the documents, I renamed the files with the reference manager Mendeley[1] to facilitate their interpretation in a subsequent software.

[1] http://www.mendeley.com/

Table 2.1. Distribution of documents per type and per decade.

type	1970-1977	1978-1987	1988-1997	1998-2007	2008-2017	TOTAL
article	116	260	310	406	483	**1575**
book review	0	0	1	0	0	**1**
commentary	0	0	0	0	14	**14**
comments	1	3	0	0	0	**4**
counterpoint	0	0	0	0	5	**5**
editorial	0	36	24	28	58	**146**
introduction	0	2	0	5	2	**9**
notes	2	0	0	0	0	**2**
obituary	0	0	0	4	1	**5**
perspective	0	1	0	13	19	**33**
point	0	0	0	0	2	**2**
rejoinder	1	0	0	0	0	**1**
reply	1	6	0	0	0	**7**
research note	3	12	3	4	44	**66**
retrospective	0	0	3	2	10	**15**
statement	1	0	0	0	0	**1**
TOTAL	**125**	**320**	**341**	**462**	**638**	**1886**

To allow rapid processing of a large quantity of text, I transformed each pdf document into a Word document using the software OmniPage (version 17)[2]. It is an optical character recognition application to obtain documents compatible with computer applications. Even though it has a 99% rate of character recognition success, several mistakes were made, which had to be manually corrected[3] in the next step. The Word documents were added to QDA Miner[4], a qualitative data analysis software.

To ensure the appropriateness of the text conversion as well as prepare the documents for further processing, I reviewed the 1,886 files, corrected typos, put paragraphs back together (paragraphs were often cut because they were on different pages), coded manually the year and type of publication, as well as

[2]http://www.nuance.fr/imaging/omnipage/omnipage-professional.asp
[3]For instance, "yenture" instead of "venture".
[4]http://www.provalisresearch.com/QDAMiner/QDAMinerDesc.html

the sections (title, authors, affiliations, abstract, core, and references). Finally, these files were uploaded and analyzed in R[5].].

Step 2: Building dictionaries. Lexicographic analysis consists in counting occurrences of unique expressions. If no dictionary (i.e. grouping of words having different forms but sharing a common sense) is specified a priori, the software counts each form as a distinct entity. For instance, "distance" and "distances" are treated as different forms and counted separately. In addition, all the distinct forms are counted, making analyses ill-structured. Building a theory-driven dictionary avoids these issues by gathering similar words in a common category and focusing the analysis on the categories defined by the researcher. In addition, the process of lemmatization forces the software to recognize as similar code the different spellings of a word (e.g., "internationali**z**ation" and "internationali**s**ation") and words sharing the same root (e.g., "culture" and "cultural").

For the purpose of this study, I first considered a dictionary consisting of the different types of distance (psychic, cultural, administrative, geographic, economic, institutional, cognitive, religious, linguistic distances) and their associated expressions. This dictionary (Table 2.2) was used to code and retrieve the paragraphs from the publications in the *Journal of International Business Studies* from 1970 to 2017 containing at least one mention to any of the aforementioned types of distance. While the focus of this chapter is on psychic distance vis-à-vis cultural distance, this first dictionary is not limited to these two types of distance in order to situate them in the larger context of distance studies overall and to illustrate the proliferation of terms associated with distance over time. Table 2.2 displays the different expressions associated with each type of distance. For example, "cultur*" means that patterns such as "culture", "culturally", and "cultural" were associated with "cultural distance", provided that these expressions are within two words of the expressions mentioned at the bottom of the table (e.g., distance, differences, proximity, close, similar, sameness).

[5]https://www.r-project.org/

Table 2.2. Expressions for each type of distance contained in the first dictionary.

Distance	Expression
administrative_distance	administrati*
cognitive_distance	cogniti*
cultural_distance	cultur*
economic_distance	economic*, economy*
geographic_distance	geographic*, physical*
institutional_distance	institution*
linguistic_distance	linguist*, language*, tongue*
psychic_distance	psychic*
religious_distance	religi*

[a] These patterns are only counted when they are within two words of the following expressions: distan*, differen*, proxim*, close, similar*, same*

Based on the dictionary presented in Table 2.2, Table 2.3 shows the evolution of the number of times these terms have been used in the *Journal of International Business Studies* every decade since 1970. It shows that over the past five decades, the interest in distances has grown almost exponentially. From three types of distance investigated in the 1970s, we have grown to nine types regularly mentions in papers since the 2000s. In addition, the attention has grown every decade for all types of distances.

Table 2.3. Evolution of the number of papers mentioning the different types of distance in JIBS from 1970 to 2017

Distance	1970-1977	1978-1987	1988-1997	1998-2007	2008-2017	TOTAL
cultural_distance	16	50	135	233	354	**788**
geographic_distance	11	23	48	90	193	**365**
economic_distance	7	35	40	94	146	**322**
institutional_distance	0	3	9	68	226	**306**
linguistic_distance	6	11	21	44	104	**186**
psychic_distance	1	2	13	36	72	**124**
cognitive_distance	3	3	4	24	54	**88**
administrative_distance	0	4	7	6	22	**39**
religious_distance	0	2	5	9	23	**39**

Figures 2.1 and 2.2 represent the evolution of the percentage of JIBS publications mentioning psychic distance (Figure 2.1) and cultural distance (Figure 2.2) per decade since 1970. These figures show that psychic distance has been on the rise since the 1980s and that cultural distance is present in most JIBS publications. The increasing proportion of publications mentioning psychic distance suggests that IB researchers have lately been more and more interested in the theoretical development and usefulness of this concept. Almost all of the paragraphs associated with theoretical development of psychic distance in the *Journal of International Business Studies* from 1970 to 2017 are after Shenkar's (2001) paper (223 paragraphs out of a total of 264 mentioning psychic distance).

A second, more complete dictionary was created for further analyses of different topics over time. Based on the first dictionary presented in Table 2.2, I first retrieved all the paragraphs containing at least one mention of an expression associated with "psychic distance". Then I selected words and phrases frequently occurring[6] in these paragraphs. Finally, I classified these words and phrases into categories constitutive of the second dictionary. Table 2.4 shows the different expressions included in the second dictionary: (1) the attributes of psychic distance (asymmetrical, dynamic, level of analysis, and perceptual), its consequences on key IB variables (decision, entry mode,

[6]Threshold of at least 25 occurrences.

Figure 2.1. Evolution of the percentage of papers mentioning psychic distance in JIBS from 1970 to 2017

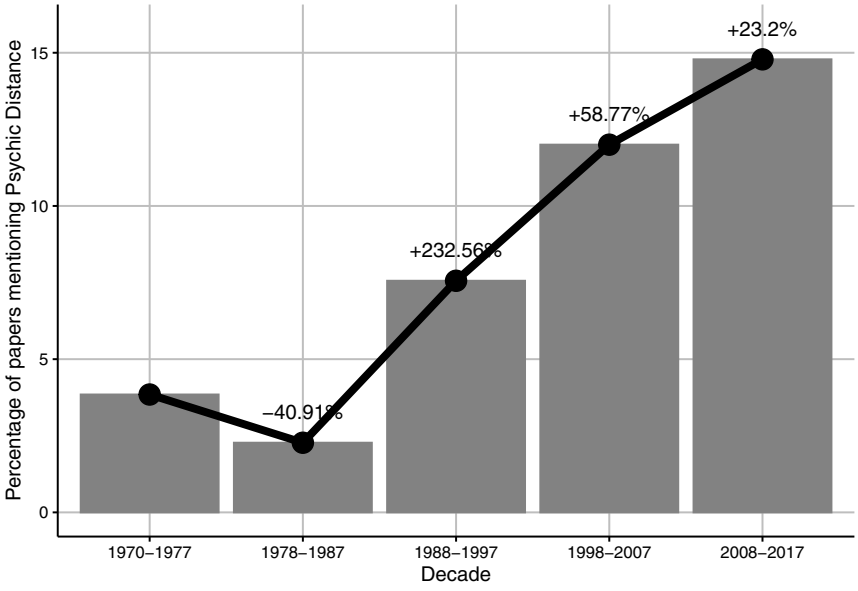
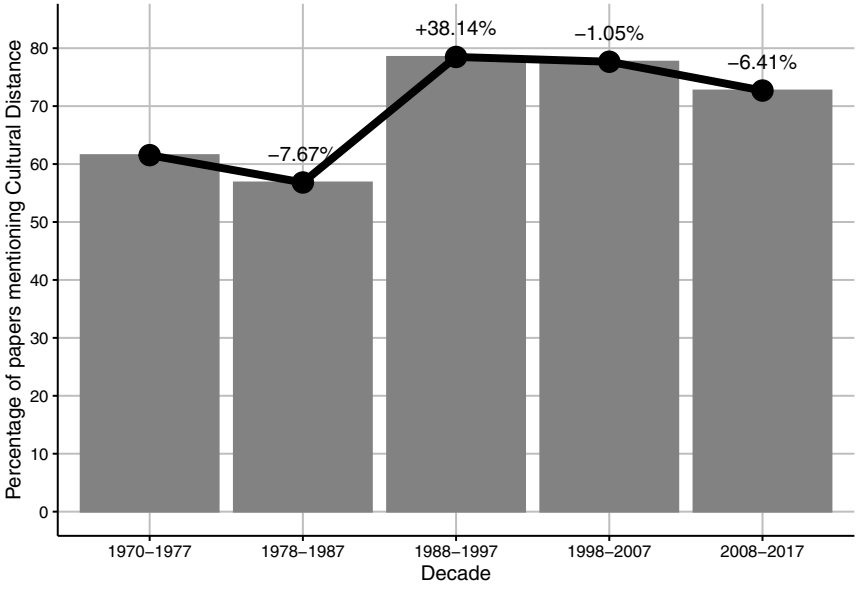


Figure 2.2. Evolution of the percentage of papers mentioning cultural distance in JIBS from 1970 to 2017



learning, location choice, management, and performance), and discussion about its negative/positive framing as well as the expressions associated with theoretical development.

Table 2.4. Expressions per category contained in the second dictionary

Type	Category	Expression
attributes	asymmetrical	asymmetr*, symmetr*
attributes	dynamic	dynamic*, experienc*, time*, chang*, evol*
attributes	individual	individual*, person*, manager*
attributes	market	region*, countr*, market*
attributes	organizational	firm*, corporat*, organization*, industr*
attributes	perceptual	percept*, perceiv*, bias*
consequence	decision	decision*, decid*, choice*, choos*
consequence	entry_mode	acqui*, brownfield*, entry, trad*, export*, import*, greenfield*, venture*, licens*, merge*, franchis*, owner*, subsidiar*, invest*, F\.D\.I\., FDI
consequence	learning	resource*, abilit*, competenc*, knowledge*, learn*
consequence	location_choice	expan*, internationali*, location*, locali*, home, host, destination
consequence	management	employee*, expatriat*, superior*, subordinate*, supervisor*
consequence	performance	success*, perform*, sales, revenue*, return*, profit*, roe, roi, roa, roce
discussion	negative	risk*, uncertain*, bad, worse, worst, unfavorable, liabilit*, weakness*, cost*, difficult*, unknwon, illegitima*, legitima*
discussion	positive	opportunit*, good, better, best, favorable, asset*, strength*, support*, divers*, synerg*, creativ*, innovat*
discussion	theory	concept*, theor*, contruct*, dimension*, factor*, measure*, model*, relation*, variable*, valid*, defin*

Step 3: Counting and analyzing occurrences and co-occurrences. Text analyses offer the possibility to run analyses at different levels: sentence, paragraph, and documents. Sentences are too short to show comparisons of different types of distance. Conversely, the documents are not focused enough and contain many parts irrelevant to the question under investigation. The paragraph is therefore a good compromise. Since it is made up of several sentences, one can observe comparisons, oppositions, and descriptions.

Step 4: Analyzing the content of relevant paragraphs. In this chapter, I rely on a blend of a priori and emergent coding (Haney et al., 1998). In the case of a priori coding, categories are decided before the analysis and are based on theory. In order to investigate the nomological network of psychic distance I needed to know how the concept is (1) defined, (2) operationalized, (3) related to other key concepts (including the other types of distance), and (4) applied throughout the literature. In the case of emergent coding, the first step is to review the different paragraphs mentioning psychic distance (more specifically here, the paragraphs dealing with the definitions of the concept and those relating what the concept has been applied to); then forming a checklist of terms describing its main features. This was done for the characteristics of psychic distance (different levels of analysis; perceptions; asymmetry; dynamic; see Table 2.4) and for the key IB issues for which psychic distance is an explanatory variable (location choice; mode of entry; performance; see Table 2.4). Hence, four questions have structured my analyses:

1. How has the concept of psychic distance been defined?
2. How has the concept of psychic distance been operationalized?
3. What are the consequences of psychic distance?
4. What are the antecedents of psychic distance?

2.3 Definitions, Operationalizations, and Nomological Network of Psychic Distance

Podsakoff et al. (2016) define a concept as a cognitive symbol specifying the attributes of the phenomenon to which it refers and distinguishing it from other phenomena. This definition stresses a concern for both content validity (what a construct is) and discriminant validity (what a construct is not). Therefore, I list the attributes scholars associated over time to the concepts of psychic distance (and cultural distance) in the *Journal of International Business Studies*.

2.3.1 How has the concept of psychic distance been defined?

In this section, I first study the evolution of the definition of psychic distance to retrieve the key attributes characterizing this concept. Then, I study the definition of cultural distance to illustrate how these key characteristics help differentiate between these two concepts.

Evolution of the definition of psychic distance in IB. Beckerman (1956) coined the term "psychic distance" and defined it as an entrepreneur's (individual) perception of the difficulty to do business with a foreign partner: *"Apart from the general reduction in 'economic' distances which would result from a reduction in the costs of air freight, for example, a special problem is posed by the existence of* ***'psychic' distance****. […] While the transport costs paid (directly or indirectly) by an Italian entrepreneur on a raw material supplied by Turkey may be no greater (as the material may come by sea) than the same material supplied by Switzerland, he is more likely to have contacts with Swiss suppliers, since* ***Switzerland will be 'nearer' to him in a psychic evaluation*** *(fewer language difficulties, and so on), as well as in the economic sense that air travel will absorb less of his time."* (Beckerman, 1956, p.38, emphasis added)

When Hornell et al. (1972) introduced the concept in the IB literature, scholars retained its meaning as the difficulty to do business between individuals. However, they did not mention the perceptual character of this type of distance: *"[…] factors preventing or disturbing the flow of information between potential and actual suppliers and customers."* In 1977, Johanson and Vahlne suggested a slight modification of this definition shifting the focus away from the individual level ("actual suppliers and customers") towards a macro level ("from and to the market"): *"The psychic distance is defined as the sum of factors preventing the flow of information from and to the market. Examples are differences in language, business practices, culture, and industrial development."* (Johanson and Vahlne, 1977, p.24) This definition is silent about both the perceptual and individual attributes of psychic distance and emphasizes instead its determinants (differences in language, business

practices, culture, and industrial development) and consequences (disruption of flow of information from and to the market). Johanson & Vahlne's (1977) definition has since been used in many papers published in the *Journal of International Business Studies* (Baack et al., 2015; Beugelsdijk et al., 2017; Kogut and Singh, 1988; Maitland and Sammartino, 2015; O'Grady and Lane, 1996; Williams and Gregoire, 2015; Yildiz and Fey, 2016).

The macro-perspective of this definition has greatly influenced the way the concept has been operationalized in subsequent research. First, it explains the macro-perspective dominating psychic distance research (until recently). Between 1970 and 2017, 74 studies associated psychic distances with the country level and only 16 associated the concept with the individual level. Second, Johanson & Vahlne's definition permits the use of any country-level difference to estimate psychic distances if it potentially disrupts information flows between countries. The resulting frequent use of cultural differences as proxy for psychic distance contributed to the growing confusion between the two concepts (Cuypers et al., 2015, p.429). From a purely operational perspective, Kogut and Singh (1988, p.430) could indeed argue that *"cultural distance is, in most respects, similar to the 'psychic distance' used by the Uppsala school."* Having lost two of its distinguishing features, individual and perceptual, the concept of psychic distance had become redundant with the concept of cultural distance, it is no wonder some may consider it to be "past its due date" (Stottinger and Schlegelmilch, 1998, p.367).

Shenkar (2001)'s paper contributed to questioning key assumptions of the concept of cultural distance. The author not only addressed several of the theoretical and methodological issues that had plagued prior research (Ambos and Hakanson, 2014; Brewer, 2007; Dow and Karunaratna, 2006). This paper inspired many investigations about the most influential dimensions of distance in internationalization (Berry et al., 2010; Brewer, 2007; Dow and Karunaratna, 2006; Dow and Ferencikova, 2010; Ellis, 2008; Gooris and Peeters, 2014; Hutzchenreuter et al., 2014). It proved instrumental in the re-conceptualization of cultural distance vis-à-vis psychic distance (Williams and Gregoire, 2015). As part of this movement to bring the concept of psychic

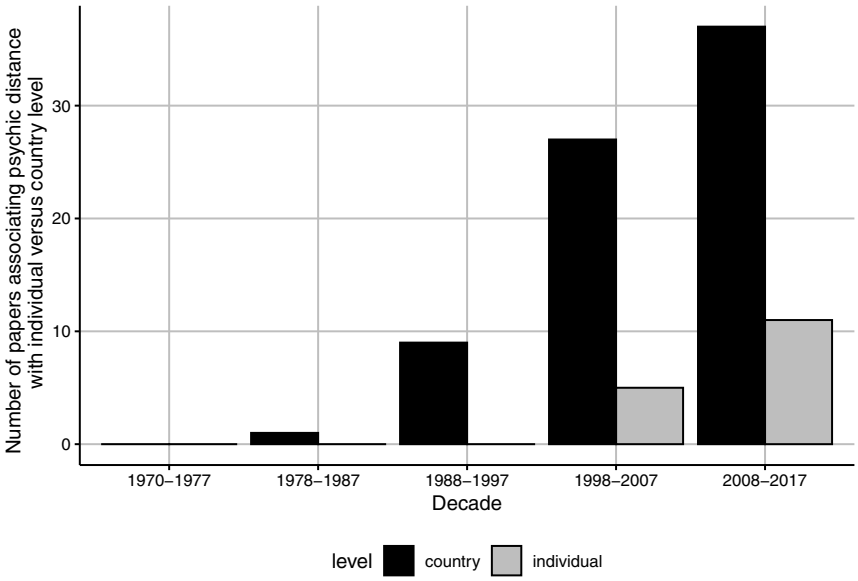
distance back to its roots and extend it, Baack et al. (2015) suggested the following definition: "We adopt the concept of perceived psychic distance that has precedence in the IB literature (…), and we borrow heavily from the preceding Uppsala definition to define perceived psychic distance as: "an individual's perception about the collective magnitude of the factors preventing or disrupting the flow of information between firm and market." (Baack et al., 2015, p.940)

This definition synthesizes previous work as it reintroduces the individual and perceptual attributes of psychic distances and maintains the reference to both its determinants ("factors") and consequences ("disrupting the flow of information between firm and market"). However, recent trends in the literature do not show evidence of this renewed interest for psychic distance as an individual perception (Baack et al., 2015; Beugelsdijk et al., 2017; Obadia et al., 2015; Yildiz and Fey, 2016). Figure 2.3 represents the evolution of the number of papers associating psychic distance with either the country (in black) or the individual (in grey) level in the *Journal of International Business Studies* per decade from 1970 to 2017. While the number of papers associating psychic distance with the individual level is on the rise, the country-level still dominates.

The reintroduction of the individual and perceptual attributes of psychic distance (Beugelsdijk et al., 2017) is crucial to establish its discriminant validity since, as Baack et al. (2015) argue, individual-level perceptions might diverge from national-level averages. Of course, national-level differences are likely to influence individual perceptions (Dow and Karunaratna, 2006). However, idiosyncratic factors like cognitive biases, personal experience, and individual preferences (Em, 2014) are additional sources of systematic variations in perceived distances not only across individuals at any given time, but also for a single person over time. This results in two additional attributes of psychic distance: its dynamic and asymmetric character.

Cultural differences between countries only marginally change over a lifetime (Beugelsdijk et al., 2015). This is however not the case for psychic

Figure 2.3. Evolution of the number of papers associating psychic distance with either the individual or the country level in JIBS from 1970 to 2017



distance. Perceptions are the product of human judgment and therefore are continuously updated as new information is acquired: *"Perceptions of distance are not fixed and cannot be taken as pre-specified for individual decision makers. Perceptions of psychic distance may be altered by new experiences, and are likely in a constant process of revision in the minds of individual managers"* (Baack et al., 2015, p.941).

Dow and Karunaratna (2006) also argue that psychic distance may not be stable overtime, much like situational animosity (Jung et al., 2002). Psychic distance is therefore dynamic in the sense that it can change relatively quickly over time due to a variety of life events and experiences (studying abroad, being an expat, working with people from a diverse set of backgrounds, etc.).

Finally, the conceptualization of psychic distance as an individual perception not only of a difference, but also of a difficulty to do business, implies that it is not necessarily symmetrical: the distance perceived by a focal person to a potential partner is unlikely to be equal to the distance perceived by this same potential partner to the focal person. First, as argued in Chapter 1, individuals have different experiences and are therefore likely

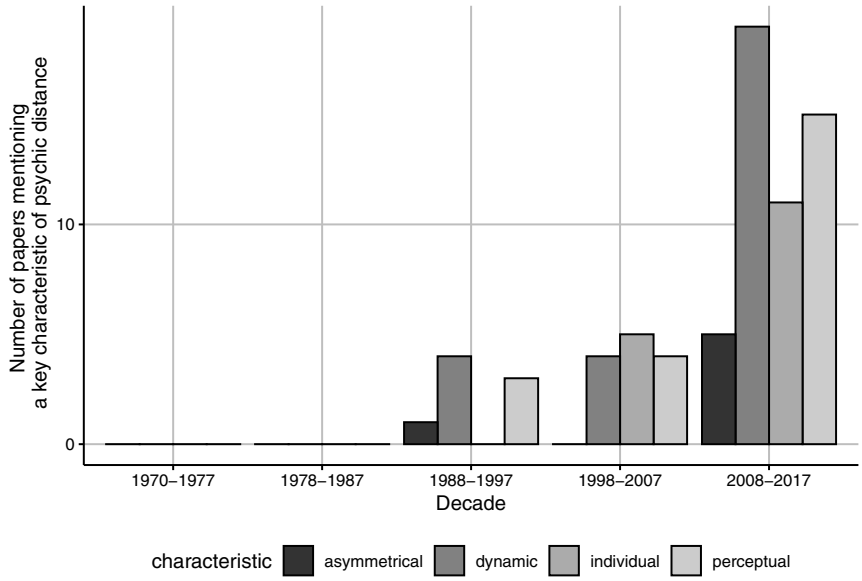
to pay attention to different sources of difference or difficulty. Second, the nature of the differences themselves may make the relationship easier for one partner and more difficult for the other.

A distance between two points A and B is "symmetrical" when the distance from A to B is equal to the distance from B to A. Geographic distances typically fall in that category. However, the perception of this distance need not be symmetrical: it can be that A perceives the distance from A to B to be (1) smaller/larger than what it actually is, and (2) smaller/larger than B's perception of the distance from B to A. Social network analyses have shown that distances between people based on affinity are asymmetrical: someone can like or trust another person more than he or she is liked or trusted by this person in return (Graebner et al., 2018; Lopez-Kidwell et al., 2018). Insofar as friendship can be interpreted as a proximity (so a distance), it is therefore asymmetrical.

Figure 2.4 shows that, at least in the *Journal of International Business Studies*, associating psychic distance with the notion of asymmetry is a very recent trend. 83% of all of the papers mentioning the idea of asymmetry of psychic distance are from the year 2017 alone. Distances are by definition symmetrical. It is only when used as a metaphor for degree of differences that this characteristic is likely to disappear. Cultural distances were assumed to be symmetrical for decades, even though *"there are no studies showing symmetry between the two (home and host) nor is there a reason to assume one"* (Shenkar, 2001, p.523). For a long time, the same was assumed for psychic distance. Hakanson and Ambos (2010) and Yildiz and Fey (2016) emphasize (and empirically find) that psychic distance, since based on perceptions, is inherently asymmetrical. Nevertheless, the idea that psychic distance is inherently asymmetric is still relatively recent and thus has hardly been investigated so far.

Conceptual differences between psychic distance and cultural distance. Definitions of cultural distance in the literature are often either too vague or too operational to single out a set of attributes characterizing

Figure 2.4. Evolution of the number of papers mentioning a key characteristic of psychic distance in JIBS from 1970 to 2017



this concept and distinguishing it from other kinds of distances. Many scholars define cultural distance as the extent to which home and host cultural environments differ (Baliga and Jaeger, 1984; Hennart and Larimo, 1998; Johnson et al., 2006). Unfortunately, this definition does not identify specifically cultural dimensions along which environments differ from one another. This opens the way to a multitude of distinct and not necessarily equivalent operationalizations of cultural distances. Scholars have indeed associated cultural distances to differences in values (Kogut and Singh, 1988), language, family structures, religions, wealth (Triandis, 1994), political system (Benito and Gripsrud, 1992a), tastes, living habits (Li and Guisinger, 1992), history (Mariotti and Piscitello, 1995), routines, legal systems, or business practices (Morosini et al., 1998). While all these differences between home and host environments provide valuable information to understand international business dynamics, gathering them all under a single term accentuates the confusions between different types of distances.

Some definitions of cultural distance also include a perceptual element (Evans and Mavondo, 2002). Lee (1998) defines cultural distance as: *"interna-*

tional marketer's perceived socio-cultural distance between the home and target country in terms of language, business practices, legal and political systems and marketing infrastructure." (Lee, 1998, p.9) Rao and Schmidt (1998) define cultural distance as the extent to which a culture is *seen* as different. This association of cultural distance with perceptions blurs further the distinction with psychic distance. Accordingly, Simonin (1999b) considers both kinds of distances as equivalent and decides to merge them.

Vague and unstable definitions of cultural distances result from the difficulty of defining culture in the first place. Tihanyi et al. (2005) indicate that Kroeber and Kluckhohn (1952) had already identified 140 definitions of culture. Now, the identification of what distinguishes culture from other environmental characteristics (e.g. economic development) is necessary to establish a definition of cultural distance discriminating against other kinds of distances between home and host environments. In the international business literature, culture is usually conceptualized as shared attitudes, beliefs, norms, and values within a community: *"the set of attitudes and values that are common to a group of people"* (Benito and Gripsrud, 1992a); *"from an economic perspective, culture may be defined as shared values and beliefs"* (Buckley and Casson, 1996). According to Hofstede (2001), these values form *"the collective programming of the mind"* resulting from sharing a language, religion, history, or education system (Reus and Lamont, 2009). Kogut and Singh (1988) draw on these definitions of culture to define cultural distance as *"the degree to which the cultural norms in one country differ from those in another country."*

Accordingly, the most common operationalization consists in computing absolute differences between home and host countries' scores on Hofstede (1980) cultural dimensions (see Griffith and Harvey, 2001; Hennart and Larimo, 1998; Johnson et al., 2006; Li and Guisinger, 1992): uncertainty avoidance, power distance, masculinity vs. femininity, individualism vs. collectivism, and later long-term orientation (Hofstede and Bond, 1988) and indulgence (Hofstede et al., 2010). Dimensions from GLOBE (House et al., 2004), Triandis (1994), Schwartz (1992), or derived from the World Values Survey

(Inglehart and Associates, 2004) are also used (Beugelsdijk et al., 2018a).

The explicit reference to shared attitudes, beliefs, norms, and values has several advantages. First, the distance is not stated between individuals, but between systems of thoughts at a higher level of analysis, a country or a community. This macro perspective is in sharp contrast with the individualistic approach of psychic distance. Second, shared values and differences between systems of values are assumed to exist whether individuals perceive their presence or not. Third, there is consensus in the literature about the relative stability of cultural differences. This stability suggests that even if cultures evolve over time, cultural distances are relatively stable (Beugelsdijk et al., 2015). Asymmetry arises from having different perceptions; as we have seen, cultural distance is not perceptual; it is thus symmetrical. Therefore, the four characteristics attributed to psychic distance clearly distinguish it from cultural distance: individual, perceptual, dynamic and symmetrical. Table 2.5 contains extracts from the literature (in the third column: Citation) illustrating these different characteristics (marked by an X in one or more of the last four columns if the citation illustrates this characteristic: individual, perceptual, dynamic, asymmetrical; some citations have no X: it means that they do not illustrate any of the four aforementioned characteristics).

Table 2.5. Characteristics of psychic distance in the academic literature.

Authors	*Year*	*Citation*	*Individual*	*Perceptual*	*Dynamic*	*Asymmetrical*
Beckerman	1956	Apart from the general reduction in economic distances which would result from a reduction in the costs of air freight, for example, a special problem is posed by the existence of PSYCHIC distance. It is probable that the manner in which the purchases of raw materials by a firm are distributed geographically will depend partly on the extent to which foreign sources have been personally contacted and cultivated. While the transport costs paid (directly or indirectly) by an Italian entrepreneur on a raw material supplied by Turkey may be no greater (as the material may come by sea) than the same material supplied by Switzerland, he is more likely to have contacts with Swiss suppliers, since Switzerland will be nearer to him in a PSYCHIC evaluation (fewer language difficulties, and so on), as well as in the economic sense that air travel will absorb less of his time.	X	X		
Johanson and Vahlne	1977	Psychic distance is defined as the the sum of factors preventing the flow of information from and to the market. Examples are differences in language, education, business practices, culture, and industrial development.				
Ehrman and Hamburg	1986	Another technique limits the search for F.D.I. initially to those countries that are similar to the firm's country of origin in terms of culture, language and methods of doing business. The distance along this dimension has been termed PSYCHIC distance (Beckermann, 1956). In a comprehensive review of F.D.I. literature, Bilkey (1978) highlights this similarity between the host country and country of origin for the firm.				

Table 2.5. *(continued)*

Authors	*Year*	*Citation*	*Individual*	*Perceptual*	*Dynamic*	*Asymmetrical*
Terpstra and Yu	1988	One concept that has similar implications to geographic proximity is PSYCHIC distance. Psychic distance is defined as factors that prevent or disturb the flows of information between firms and markets. Examples of such factors in the international context are differences between the home and the host country in language, culture, political systems, level of education, level of industrial development, etc. It has been shown that PSYCHIC distance has a significant impact on the time order of establishing foreign operations in new host countries (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977). Empirical findings on the impact of geographic proximity on FDI also suggest a positive relationship (Davidson and McFetridge 1985; Yu and Ito 1986). Thus, as suggested by several studies, geographic distance is correlated with PSYCHIC distance (e.g., Johanson and Wiedersheim-Paul 1975).				
Kogut and Singh	1988	Cultural distance is, in most respects, similar to the PSYCHIC distance used by the Uppsala school. [] (Johanson and Vahlne, 1977) did not, however, explore the implications for country patterns in entry mode behavior from PSYCHIC distances between countries, nor stipulate clearly how the experience of the firm mitigates perceived uncertainty arising from differences in cultures.				
Dichtl, Koeglmayr and Mueller	1990	Managers who experience a greater-than-average PSYCHIC distance to foreign markets or countries are older, have a more limited education level, are less proficient in foreign languages and travel less to foreign countries than their colleagues, are risk averse, rigid and unwilling to change, and expect lengthy job-related stays abroad to have a negative effect on their careers and families.	X	X		
Banerji and Sambharya	1996	The PSYCHIC distance in the minds of the managers of a firm between the domestic and the foreign markets. The reduction of this PSYCHIC distance increased the likelihood of a firm getting involved in international business.	X			

Table 2.5. *(continued)*

Authors	*Year*	*Citation*	*Individual*	*Perceptual*	*Dynamic*	*Asymmetrical*
O'Grady and Lane	1996	The phenomenon we have referred to as the PSYCHIC distance paradox seemed to be created by common, but unexplored, assumptions or underlying beliefs about the United States held by decision makers in the Canadian retail companies. [] For example, a firm that hires managers with significant experience in a target market that is distant from the culture of the firm's home country would have a much smaller PSYCHIC distance from that market than measurements at national levels of aggregation would indicate. One contribution of this research is that it investigates the concept of PSYCHIC distance at industry and firm levels. [...] The nationality of the executives was not the key, but their having had direct experience in the market was critical. The real indicators of PSYCHIC distance are to be found much closer to the ground than researchers have been looking. [...] This situation suggests that an asymmetry may exist in the PSYCHIC distance concept, at least when performance is taken into consideration. This raises another potential paradox that the distance between the same two countries could be different depending upon the direction one travels.	X	X	X	X
Gray	1997	Senior managers of more highly internationalized firms are likely to be less concerned about PSYCHIC distance.	X	X	X	
Eriksson, Johanson, Majkgard, and Sharma	1997	Firms with little experience of foreign markets prefer those that are similar to their own domestic market and that are located at a short PSYCHIC distance. As firms accumulate experiential knowledge, the influence of this kind of distance on the choice of entry mode decreases.			X	

Table 2.5. *(continued)*

Authors	*Year*	*Citation*	*Individual*	*Perceptual*	*Dynamic*	*Asymmetrical*
Evans and Mavondo	2002	Respondents were asked to nominate a PSYCHICally close foreign market and a PSYCHICally distant foreign market in which their firm operated. [] It becomes evident that it is not the simple presence of external environmental factors, which determines the degree of PSYCHIC distance. Rather, it is the mind's processing, in terms of perception, of cultural and business differences that forms the basis of PSYCHIC distance [...] it is proposed that PSYCHIC distance be defined as the distance between the home market and a foreign market, resulting from the perception of both cultural and business differences. [...] It is more likely that differences between countries stem from individuals' perceptions of a foreign country's general values and attitudes. This focus on the individual's perceptions is a critical aspect of the PSYCHIC distance construct.	X	X		
Trabold	2002	Ronen and Shenkar (1985) have defined eight PSYCHIC distance clusters comprised of a total of 42 countries. The countries within each cluster are regarded as rather similar in terms of the PSYCHIC distance from one another.				
Sethi et al.	2003	A composite measure based on the distance of respective countries from the USA on all four dimensions of Hofstede's (1983) cultural distance measures. A low score indicates greater cultural proximity to USA, and a high score greater PSYCHIC distance.				
Cuervo-Cazzura	2006	Psychic distance is the difference between countries in terms of language, culture, education, business practices, industrial development, and regulations, all of which may limit the transfer of information.				

Table 2.5. *(continued)*

Authors	*Year*	*Citation*	*Individual*	*Perceptual*	*Dynamic*	*Asymmetrical*
Dow and Karunaratna	2006	Psychic distance should ideally be measured by the perceptions of the decision-maker at the time the decision is made [...] the opportunity to capture variance in perceived PSYCHIC distance among decision-makers within the same country [...] We do want to stress that we are not dismissing the perceptual and individual aspects of PSYCHIC distance. [...] These macro-level factors form the context within which a manager's perceptions of PSYCHIC distance are formed [...] A manager's perception of PSYCHIC distance (PDp) will be a function of the PSYCHIC distance stimuli he or she is exposed to, but that perception will also be moderated by the decision-maker's sensitivity to those stimuli. [...] We do want to stress that we are not dismissing the perceptual and individual aspects of PSYCHIC distance. [...] Much of the instability and lack of homogeneity in the PSYCHIC distance construct that Shenkar (2001) refers to arises because the decision-maker's personal background and experiences (Dichtl et al., 1990) make him or her more or less sensitive to external stimuli, such as a difference in the major languages between countries. The manager's sensitivity to the stimuli will be a function of several factors, such as previous international experience, age, and education level of the decision-maker (Dichtl et al., 1990).	X	X	X	
Goerzen and Makino	2007	The lack of knowledge about foreign market constitutes PSYCHIC distance in the minds of managers between the host and home countries.	X	X		

Table 2.5. *(continued)*

Authors	Year	Citation	Individual	Perceptual	Dynamic	Asymmetrical
Ellis	2008	Data on PSYCHIC distance were solicited from a subsample of 14 informants who had already been interviewed as part of the larger study. The aim was to tap directly into the distance perceptions of Chinese exporters. [...] Psychic distance is subjectively shaped by those unique distance-compressing and distance-bridging factors to which each manager is exposed [...] PSYCHIC distance cannot be observed at the macro level. [...] Self-assessed: data on PSYCHIC distance were solicited from a subsample of 14 informants who had already been interviewed as part of the larger study. The aim was to tap directly into the distance perceptions of Chinese exporters. To measure the PSYCHIC distance to foreign countries, a comprehensive list of 55 foreign markets was generated from questionnaires already completed at the halfway stage of data collection. Informants then rated each country on a scale from 1 to 100, with China anchored on 1. [...] Psychic distance moderates the market size-entry sequence relationship. [...] Psychic distance diminishes with experience [...] PSYCHIC distance is not fixed, but diminishes in tandem with international experience and organizational learning (Johanson and Vahlne, 1990). [...] The findings also reveal that PSYCHIC distance is asymmetrical in nature, and that assessments made by sellers and their buyers are inherently inequivalent [...] This finding confirms Stottinger and Schlegelmilch's (1998) observation that PSYCHIC gaps are perceived differently by different people. In other words, PSYCHIC distance is asymmetrical between buyers and sellers (Ellis, 2000). [...] Data on PSYCHIC distance were solicited from a subsample of 14 informants who had already been interviewed as part of the larger study. The aim was to tap directly into the distance perceptions of Chinese exporters. [...] Psychic distance is subjectively shaped by those unique distance-compressing and distance-bridging factors to which each manager is exposed (Child et al., 2002; Ellis, 2000). [...] PSYCHIC distance cannot be observed at the macro level (Sousa and Bradley, 2006).	X	X	X	X

Table 2.5. *(continued)*

Authors	*Year*	*Citation*	*Individual*	*Perceptual*	*Dynamic*	*Asymmetrical*
Katsikeas et al.	2009	Interfirm PSYCHIC distance [...] The PSYCHIC distance construct was measured on the basis of a five-item scale reflecting the extent to which the operating environments of the importer and exporter differed in terms of traditions, values, language, accepted business practices, economic conditions, legal system, and communications infrastructure.				
Yeniyurt, Townsend, Cavusgil and Ghauri	2009	In this study we employ cultural distance as a proxy for PSYCHIC distance: this is consistent with previous research in international business (Benito and Gripsrud, 1992; Kogut and Singh, 1988; O'Grady and Lane, 1996). Capturing all the possible components of PSYCHIC distance is difficult, so cultural distance is often employed as a proxy (Nordstrom and Vahlne, 1994; O'Grady and Lane, 1996). For the purpose of this investigation, cultural distance is being calculated through the adoption of the method used by Contractor and Lorange (1988), Kogut and Singh (1988), and Nordstrom and Vahlne (1994), and relies on computations derived primarily from Hofstede's (1980, 1991) cultural dimension scores.				

Table 2.5. *(continued)*

Authors	*Year*	*Citation*	*Individual*	*Perceptual*	*Dynamic*	*Asymmetrical*
Hakanson and Ambos	2010	However, as Shenkar (2001) has pointed out, there are good reasons to believe that PSYCHIC distances in contrast to geographical distances and cultural distances as conventionally measured are not symmetrical, i.e. the perceived distances from A to B and from B to A are not necessarily equal. Indeed, as a number of studies confirm, measures of perceived distances based on respondents' judgments as to the degree of similarity between home and target countries produce asymmetry whenever more than one source country is involved (Brock et al., 2008, Dichtl et al., 1984, Ellis, 2008, Dow, 2000, Stottinger and Schlegelmilch, 1998) [...] One criticism of previous studies has been the usually implicit treatment of cultural and PSYCHIC distances as symmetric (Shenkar, 2001), i.e. assuming that such distances (like geographic ones) are the same regardless of direction. Our data descriptively confirms the existence of considerable asymmetry. [...] The key objective of the study was to assess the PSYCHIC distances between the 25 countries. Respondents were asked to indicate to what extent they perceived foreign countries to be close or far away, in terms of PSYCHIC distance, from their home countries.	X	X		X
Ellis	2011	Psychic distance describes differences in managers' subjective perceptions regarding the dissimilarities of foreign markets (Ellis, 2007; Nordstrom, 1991).	X	X		
Prashantham and Floyd	2012	Psychic distance is defined as the degree of sociocultural and institutional difference between the domestic market and new international markets (Beckerman, 1956; Ellis, 2008; Johanson and Vahlne, 1977; Kogut and Singh, 1988).				

Table 2.5. *(continued)*

Authors	*Year*	*Citation*	*Individual*	*Perceptual*	*Dynamic*	*Asymmetrical*
Baack, Dow, Parente and Bacon	2015	This article demonstrates how the application of social psychology theories and methods can provide new theoretical perspectives to explain when, how, and why individual-level perceptions of PSYCHIC distance might diverge from national-level averages. [...] we focus on individual perceptions of PSYCHIC distance [...] we borrow heavily from the preceding Uppsala definition to define perceived PSYCHIC distance as: an individual's perception about the collective magnitude of the factors preventing or disrupting the flow of information between firm and market. [...] an important issue is the identification of the other factors and processes shaping individual perceptions of PSYCHIC distance above and beyond national-level differences. [...] Psychic distance can no longer be captured by a single set of national-level scores. [...] Psychic distance, should be considered in terms of individual-level perceptions of distance rather than with national-level indices based on secondary sources. [...] Despite the prominence of PSYCHIC distance, and other forms of distance, as potential predictor variables in international business (IB) research, very little work has been done exploring the factors and processes that shape a decision maker's perceptions of distance. We argue in this article that social cognition theory can help fill that void. [...] only four papers (Dow, 2008; Hakanson and Ambos, 2010; Sousa and Bradley, 2006; Williams and Gregoire, 2015) have begun to explore the factors and processes that shape decision makers' perceptions of distance, or more specifically PSYCHIC distance. [...] we focus on individual perceptions of PSYCHIC distance [...] we borrow heavily from the preceding Uppsala definition to define perceived PSYCHIC distance as: an individual's perception about the collective magnitude of the factors preventing or disrupting the flow of information between firm and market. [...] The purpose of the present research is to demonstrate, using individual-level experiments, the role that confirmation bias plays in how managers change their perceptions of PSYCHIC distance [...] individual perceptions of PSYCHIC distance are malleable and subject to individual-level biases [...] perceptions of distance are not fixed and cannot be taken as pre-specified for individual decision makers. Perceptions of PSYCHIC distance may be altered by new experiences, and are likely in a constant process of revision in the minds of individual managers.	X	X	X	

Table 2.5. *(continued)*

Authors	*Year*	*Citation*	*Individual*	*Perceptual*	*Dynamic*	*Asymmetrical*
Obadia, Bello and Gilliland	2015	Psychic distance refers to differences in culture, business practices, language, and related issues between the operating environments of the trading partners, hindering the exchange process (Evans, 2011).				
Cuypers, Ertug and Hennart	2015	Other elements of PSYCHIC distance, such as differences in education, economic development, political systems, and religion.				
Boellis, Mariotti, Minichilli and Piscitello	2016	To measure the PSYCHIC distance between Italy and the host countries, we adopt the Dow and Karunaratna's (2006) indicator, which encompasses five dimensions (languages, religions, levels of industrial development, levels of education, and political systems).				
Beugelsdijk, Kostova and Roth	2016	Psychic distance is generally understood to be determined by both individual level and country-level characteristics, including differences in language, political regimes, geographic distance and also cultural distance (Dow and Karunaratna, 2006; O'Grady and Lane, 1996). [...] Unlike cultural distance which is based on a comparison of objective sets of values that people in different countries hold, PSYCHIC distance is in essence perceptual.	X	X		

Table 2.5. *(continued)*

Authors	*Year*	*Citation*	*Individual*	*Perceptual*	*Dynamic*	*Asymmetrical*
Yildiz and Fey	2016	Psychic distance is shaped by individuals' judgment and comparison of a foreign country in relation to a baseline standard (i.e., home-country context) they are embedded in and/or most familiar with (Nebus and Chai, 2014). [...] we conceptualize PSYCHIC distance as an individual-level phenomenon. [...] We propose a new framework, which differentiates between the extent (i.e., the degree to which two countries are perceived to be similar/different) and effects (i.e., the degree to which distance perceptions create favorable or unfavorable attitudes and responses) of PSYCHIC distance perceptions. [...] our aim in this article is to further our understanding of those factors that shape individuals' PSYCHIC distance perceptions, and to shed light on the conditions under which individuals' distance perceptions depict asymmetric patterns in terms of both extent and effects. [...] Psychic distance refers to the sum of individuals' perceptions regarding the differences between two countries in terms of language, education, business practices, culture, and industrial development (Johanson and Vahlne, 1977: 24). [...] our research zeroes in on micro-level antecedents of PSYCHIC distance perceptions and factors affecting their divergence from national-level averages. [...] Our findings reveal that both the extent and the effects of PSYCHIC distance perceptions are asymmetric. [...] our aim in this article is to further our understanding of those factors that shape individuals' PSYCHIC distance perceptions, and to shed light on the conditions under which individuals' distance perceptions depict asymmetric patterns in terms of both extent and effects. [...] there has been surprisingly limited research systematically testing the assumption of symmetry. One exemplary exception is Hakanson and Ambos (2010), who find that relative level of economic development and relative quality of governance create asymmetric PSYCHIC distance perceptions. Extending their analysis in a follow-up study, Hakanson et al. (2016) show that exposure to and reputational status of the target country could also generate asymmetric effects on PSYCHIC distance perceptions.	X	X		X

2.3.2 How has the concept of psychic distance been operationalized?

The misunderstandings due to how concepts are defined and used are further heightened by the ways in which they are operationalized. As Evans and Mavondo (2002, p.519) write: *"In the context of psychic distance, Kogut and Singh's (1988) composite index is of limited use"* since it can hide important intra-country variations (O'Grady and Lane, 1996), also excluding the influence of individual perceptions completely (Evans et al., 2008). There currently exists several different operationalizations of psychic distance: (1) relying on Ronen and Ronen and Shenkar (1985)'s ten cultural zones of the world; (2) focusing on its antecedents to estimate it since having access to individual psychic distance scores is arduous (Dow and Karunaratna, 2006); (3) self-assessed measures (Ellis, 2008; Evans and Mavondo, 2002; Hakanson and Ambos, 2010). The latter is the only one to take into account individual perceptions. In addition, the same operationalization (the Kogut & Singh index) is also used to proxy a variety of concepts. It has been used for cultural distance, psychic distance, and institutional distance (Ali, 1995; Dikova et al., 2010; Hashai, 2011; Jensen and Szulanski, 2004). The likelihood of a mismatch between the concept and its operationalizations increases when definitions are ambiguous or too broad; if the definitions are weak, the operationalizations are likely weak as well (MacKenzie, 2003; MacKenzie et al., 2011; Nunnally and Bernstein, 1994; Schwab, 1980). Researchers often fail to clearly distinguish the different types of distance, and definitions are often incomplete (antecedents, dimensions, levels of analysis are often left unspecified).

Ambiguous conceptual definitions allow for the use of multiple proxies and often result in inconsistent operationalizations of a concept (Jaccard and Jacoby, 2009). This issue is particularly acute for psychic distance. There is a growing consensus about psychic distance being individual perceptions towards other countries. Yet, biases likely to affect such self-reported perceptions and the scarcity or lack of availability of managers on the verge

of making international decisions have for long encouraged the use of archival data aggregated at the country level as proxies of psychic distances. This is how psychic distances have come to be reduced to their macro-level components or antecedents (Dow and Karunaratna, 2006) and equated with cultural distances (Kogut and Singh, 1988).

A first stream of research relies on indirect, macro-level data to estimate psychic distance: an aggregated index (Kogut and Singh, 1988), country clusters Ronen and Shenkar (1985), and psychic distance stimuli (Dow and Karunaratna, 2006). A first sub-stream of research follows Kogut and Singh (1988) and considers that psychic distance is a synonym of cultural distance which can be approximated using a composite index based on Hofstede's cultural dimensions scores. Hashai (2011) uses a mix of geographic distance and cultural distance calculated using the Kogut and Singh (1988) index on GLOBE data (*"The proxy used for the expansion of geographic scope aims to reflect the increase in 'psychic distance'"*, p.1003). This first stream of studies thus negates (or considers negligible) the individual and perceptual characteristics of psychic distance. A second sub-stream of studies is based on Ronen & Shenkar's (1985) ten cultural zones of the world (namely, Anglo, Germanic, Nordic, Latin European, Latin American, near East, far East, Arabic, and independent countries). If firms stay in the same cluster as their home country, they face "psychically close markets"; but if they venture outside of their cultural cluster, they are in contact with "psychically more distant" markets (Sullivan, 1994). However, Trabold (2002) points out that this classification has several drawbacks. First, not all the countries are included in the ten cultural zones of the world. Moreover, it seems odd to aggregate countries further in clusters when scholars consider that culture is not even homogeneous within each country (Shenkar, 2001): it makes the distinction between psychic and cultural blurrier, and since no distance between the different clusters is considered, it also mixes distances and differences. This second stream of studies negates both notions explicited in the expression "psychic distance": psychic, because it is neither based on the individual level nor on perceptions; and distance, since no distance

between the clusters is provided. A third sub-stream of research considers macro-level differences as an antecedent of psychic distance. This is the reasoning behind the psychic distance stimuli (Dow and Karunaratna, 2006): since it is not possible to directly tap into managers' perceptions on a large scale, Dow and Karunaratna (2006) chose to focus on what is assumed to drive these perceptions, i.e., the more easily measurable country-level differences in terms of languages, religions, industrial development, levels of education and political systems. Their publicly available scores have been used in many studies (Boellis et al., 2016; Dow et al., 2016; Malhotra and Gaur, 2014; Peeters et al., 2015; Yildiz and Fey, 2016) to investigate a wide variety of topics. Table 2.6 gathers the different ways of measuring psychic distance found in the *Journal of International Business Studies* and in two other studies marked by an asterisk.

Table 2.6. Different measures of psychic distance across the IB literature.

Reference	Operationalization	Dependent
Kogut and Singh (1988)	Cultural distance index: "Using Hofstede's indices, a composite index was formed based on the deviation along each of the four cultural dimensions (i.e., power distance, uncertainty avoidance, masculinity/femininity, and individualism) of each country from the United States ranking. The deviations were corrected for differences in the variances of each dimension and then arithmetically averaged." (p.422)	Entry mode
Sullivan (1994)	Ronen and Shenkar's (1985) 10 psychic zones of the world: "Sullivan and Bauerschmidt [1990] operationalize psychic distance by estimating the geographical dispersion of the overseas subsidiaries of a firm. We follow the same logic, but estimate the Psychic Dispersion of International Operations (PDIO) by calibrating the dispersion of the subsidiaries of a firm among the ten psychic zones of the world as identified by Ronen and Shenkar [1985]. Each zone has, as Hofstede [1993:84] and Adler, Doktor and Redding [1986] suggest, a unique cognitive map of the principles of management. Therefore, we presumed that the greater the dispersion of an MNC's subsidiaries across these ten zones, the greater the psychic dispersion of its international operations." (p.332)	Degree of internationalization of firms

Table 2.6. *(continued)*

Reference	Operationalization	Dependent
Evans and Mavondo (2002)	Self-assessed: "Respondents were asked to indicate the degree to which the foreign market was similar or different to the home market on a 7-point Likert scale, ranging from (1) totally the same to (7) totally different." (p. 523)	Variance in financial performance and strategic effectiveness
Dow and Karunaratna (2006)	Psychic distance stimuli: country-level differences in languages, religions, industrial development, levels of education and political systems	Intensity of trade between a home and a host country.
Ellis (2008)	Self-assessed: "data on psychic distance were solicited from a subsample of 14 informants who had already been interviewed as part of the larger study. The aim was to tap directly into the distance perceptions of Chinese exporters. To measure the psychic distance to foreign countries, a comprehensive list of 55 foreign markets was generated from questionnaires already completed at the halfway stage of data collection. Informants then rated each country on a scale from 1 to 100, with China anchored on 1." (p. 358)	Psychic distance moderates the market size-entry sequence relationship.

Table 2.6. *(continued)*

Reference	Operationalization	Dependent
Hakanson and Ambos (2010)*	Self-assessed; aggregated at the country-level: "Respondents were asked to indicate to what extent they perceived foreign countries to be close or far away, in terms of psychic distance, from their home countries. [...] we anchored a psychic distance scale from 0 to 100 by asking the respondents to set the distance to their home country to 0 and the distance to the country on the list that they perceived be the most distant to 100." (p. 201)	Psychic distance impacted by macro-level differences.
Ellis (2011)	Self-assessed: 54 managers in Hong Kong and 96 managers in Guangzhou were asked to rate their subjective perceptions of the psychic distance to a list of 60 countries on a scale from 1 to 100, with their home setting (Hong Kong or China) anchored on 1.	Identification and exploitation of opportunities in international entrepreneurship.
Hashai (2011)	Mix of cultural and geographical distance; Kogut and Singh (1988) index on GLOBE data	International expansion patterns of born global firms.
Prashantham and Floyd (2012)	Self-assessed; aggregated (data from Hakanson & Ambos, 2010)	Improvisation and trial-and-error learning.
Malhotra and Gaur (2014)	Macro-level differences (psychic distance stimuli on language and religion only; data from Dow & Karunaratna, 2006)	Choice of control in cross-border acquisitions.

Table 2.6. *(continued)*

Reference	Operationalization	Dependent
Baack et al. (2015)	Experiment (quantitative): "In the present study, respondents were asked to compare the psychic distance from Australia of nine different countries. This set of nine includes the four host countries under investigation, plus five benchmark countries (the United Kingdom, Japan, Mexico, Brazil, and Ecuador). The benchmark countries were selected to maximize the variance in terms of psychic distance from Australia. As is the case in traditional best-worse scaling, each respondent was presented with multiple subsets of countries. In this instance, each subset contained three of the nine countries. For each three-country set, the respondent was asked to select the country nearest to you in terms of psychic distance and the country furthest from you in terms of psychic distance." (p. 945)	Psychic distance explained through the prism of confirmation bias.
Peeters, Dehon and Garcia-Prieto (2015)	Macro-level differences (Psychic distance stimuli, Dow & Karunaratna, 2006)	Achieving cost savings targets.
Dow, Cuypers and Ertug (2016)	Macro-level differences (Psychic distance stimuli excluding language and religion, Dow & Karunaratna, 2006)	Choice of ownership in foreign acquisitions.

Table 2.6. *(continued)*

Reference	Operationalization	Dependent
Boellis, Mariotti, Minichilli and Pischitello (2016)	Macro-level differences (Psychic distance stimuli, Dow & Karunaratna, 2006)	Entry mode choice of family firms.
Hakanson et al. (2016)*	Self-assessed; aggregated (from Hakanson & Ambos, 2010)	Psychic distance (asymmetric perceptions).
Yildiz and Fey (2016)	Macro-level differences (Psychic distance stimuli, Dow & Karunaratna, 2006)	Practice implementation and organizational commitment in cross-border M&As.
Beugelsdijk, Kostova and Roth (2017)	Self-assessed; aggregated (from Hakanson & Ambos, 2010)	Self-assessed; aggregated (from Hakanson & Ambos, 2010).

A second stream of studies relies on direct, individual-level data to assess psychic distance. In the early 2000s, the renewed interest for the two distinctive attributes of psychic distance, individual and perceptual (Shenkar, 2001), resulted in the growing use of surveys and experiments to assess psychic distance (Baack et al., 2015; Ellis, 2008, 2011; Evans and Mavondo, 2002; Hakanson and Ambos, 2010; Hakanson et al., 2016; Prashantham and Floyd, 2012). Scholars like Harzing (2004) have called for procedures capturing how managers individually perceive other countries. Experience and learning continuously influence such a perception, which is therefore likely to vary across individuals within the same country and also likely to evolve over time. This last stream of research acknowledges that psychic distances are individual perceptions and ask respondents (e.g., managers) to identify a psychically close and a psychically distant country, rating the distance they perceive on a Likert scale. This stream based on self-assessed measures of psychic distance collected at the individual level can be further divided into two different approaches. A first sub-stream consists in asking managers from only one country to report their perceptions towards other countries (Ellis, 2011). The second approach consists in asking managers from several countries to report their perceptions towards other countries and then, unlike the first approach, aggregating perceptions at the country level (e.g., Hakanson and Ambos, 2010). Following the first approach, Ellis (2011, p.110) surveyed *"54 managers in Hong Kong and 96 managers in Guangzhou"* and requested them to *"rate their subjective perceptions of the psychic distance to a list of 60 countries on a scale from 1 to 100, with their home setting (Hong Kong or China) anchored on 1."* They were provided with definitions of psychic distance by Johanson and Wiedersheim-Paul (1975) and O'Grady and Lane (1996). Hakanson and Kappen (2017, p.1113) similarly rely on a ranking of different countries *"ranging from 1 (closest to Sweden) to 20 (furthest from Sweden) following Johanson & Wiedersheim-Paul (1975)."* Data collected following this approach remains at the individual level (Evans and Mavondo, 2002). Also following the first approach, Baack et al. (2015) relied on an experimental design, rare in IB but ideal to manipulate

perceptions, in their study on confirmation bias (i.e. *"a tendency to focus more heavily on information which confirms one's beliefs"*, p.938) and psychic distance. Their measure of psychic distance is based on best-worst scaling (BWS): anchoring the home country to be Australia, the respondents were presented with sets of three different countries and were asked to select the one *"nearest to [them] in terms of psychic distance"* and the one *"furthest from [them] in terms of psychic distance"* (p.945). They were presented with a different set of countries 12 times and were asked the same questions each time. The respondents were shown the definition of psychic distance by Johanson and Wiedersheim-Paul (1975). Experiments illustrate how psychic distance can rapidly change over time (the fourth characteristic of psychic distance is its dynamism). Following a second sub-stream, Hakanson and Ambos (2010) collected individual perceptions of other (host) countries and subsequently aggregated them at the focal (home) country level. The aggregation of individual perceptions of distances towards (potential host) countries at the (home) country level has interesting implications for the concept of psychic distance. It eliminates individual variations to produce a country-level measure which is likely to be more stable, because it is less affected by individual experience and translates a collective experience. Scores lose their individual and dynamic characteristic. However, the distances resulting from such a procedure still differ from cultural distances (at least the way they are currently operationalized) in two important ways. First, the resulting scores are still direct perceptions, not distances indirectly computed between systems of values. Second, the distances produced are asymmetrical. The resulting scores can therefore be interpreted as distances collectively perceived towards other countries by the citizens of a focal country because of a common experience. They might however capture some systematic variations which are not captured by scores traditionally used as "psychic distance stimuli". Moreover, since they are likely to be more stable once the influence of individual experiences removed, such scores can be used as archival data in other studies. For instance, Beugelsdijk, Kostova and Roth (2017) use psychic distance scores from Hakanson and Ambos (2010). As

Prashantham and Floyd (2012: 560) argue: *"While acknowledging that the operationalization of psychic distance is not an exact science, we do note that Hakanson and Ambos (2010) helpfully provide indicative measures of psychic distance across 25 major economies of the world."*

Despite widespread criticism (Kirkman et al., 2006; Shenkar, 2001), the Kogut and Singh (1988) index is the most widely used operationalization of cultural distance (Beugelsdijk et al., 2018a). Out of the 74 articles using cultural distance as one of their independent or control variables, 48 (i.e., 65%) rely on this index to measure cultural distance. In a few studies, new measures of cultural distance were introduced with a major impact on the distance actually obtained (Beugelsdijk et al., 2018b). Hofstede (1980)'s dimensions are the best known[7] and the most widely used, but other scholars identified other dimensions[8]. Besides, as another illustration of the rampant muddling between psychic and cultural distance, self-reported measures were considered to assess cultural distance in a few studies (Luo et al., 2001; Luo, 2002).

2.3.3 What are the consequences of psychic distance?

The concept of psychic distance has first been used in international business studies to explain firms' international expansion (Banerji and Sambharya, 1996; Ellis, 2000, 2008; Evans and Mavondo, 2002). In their seminal papers, Johanson and Wiedersheim-Paul (1975) and Johanson and Vahlne (1977) used this concept to explain both market selection (in which host countries to locate foreign subsidiaries) and entry mode (the level of resource commitment in the host country: export, licensing, franchising, alliance, joint-venture, or fully-owned subsidiary). Market selection and entry mode have since been investigated many times in relation to psychic distance (Arora and Fosfuri, 2000; Eriksson et al., 1997).

[7] Power distance, Individualism vs collectivism, Uncertainty avoidance, Masculinity vs femininity, Long-term orientation, Indulgence vs restraint.

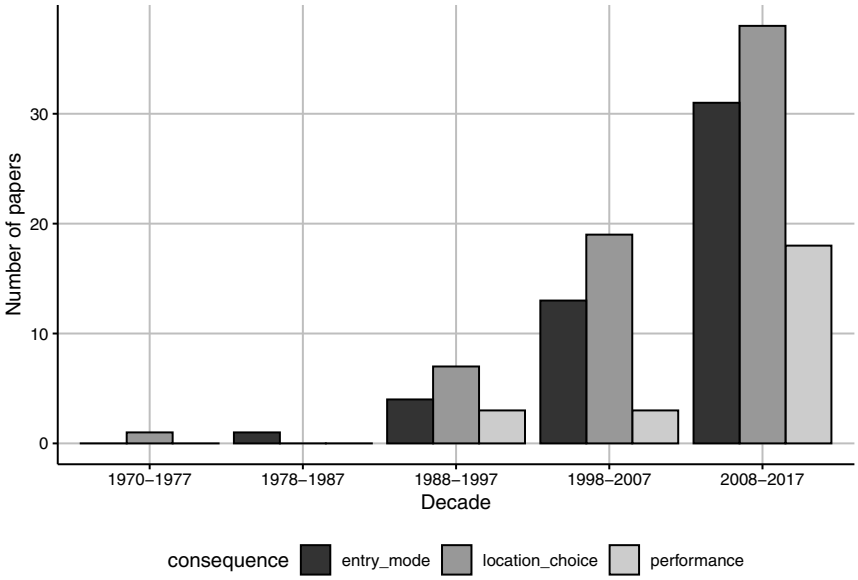
[8] e.g. Trompenaars and Hampden-Turner (1997) (Universalism vs particularism, Individualism vs communitarianism, Specific vs diffuse, Neutral vs emotional, Achievement vs ascription, Sequential time vs synchronous time, Internal direction vs outer direction), Schwartz (1992) (Embeddedness vs autonomy, Mastery vs harmony, Hierarchy vs Egalitarianism), and GLOBE (House et al., 2004) (Power distance, Institutional collectivism, In-group collectivism, Gender egalitarianism, Uncertainty avoidance, Future orientation, Performance orientation, Assertiveness, Human orientation)

Internationalization theory started with the Uppsala school (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Hornell et al., 1972) suggesting that psychic distance is negatively associated with both the likelihood of selecting a location and the resources committed to this location. Managers of firms beginning their internationalization process generally have little experience in the matter and look for locations where they believe they can maximize chances of success. Market attractiveness is not the only factor affecting these chances of success: the ability to understand local ways of doing business and customers' expectations also determine firms' ability to tap into the market potential (Ellis, 2008). Psychic distance is by definition a manager's *"perception about the collective magnitude of the factors preventing or disrupting the flow of information between firm and market"* (Baack et al., 2015, p.940) and is associated with greater uncertainty (Gillespie et al., 1999). As psychic distance increases, the perceived chances of success will therefore decrease and the likelihood of choosing the location as well as the resources committed in this location decrease (Kogut and Singh, 1988). Incidentally, neighboring countries are likely to be psychically close because they are often both geographically and culturally close (Hofstede, 1980). Neighboring countries are therefore more likely to be selected first in an internationalization process. Figure 2.5 represents the evolution of the number of papers mentioning an expression (see Table 2.4) associated with location choice, mode of entry and performance in the psychic distance paragraphs in the *Journal of International Business Studies*.

Figure 2.5 represents the evolution per decade of the number of papers mentioning one of the expressions associated with entry mode, location choice, and performance in paragraphs mentioning psychic distance in the *Journal of International Business Studies*. It shows that location choice is the dependent variable most associated with psychic distance, followed by entry mode.

The Uppsala model (Johanson and Vahlne, 1977; Hornell et al., 1972) suggests that managers perceive greater chances of success in psychically close countries. Whether chances of success are indeed higher in psychically close countries is a different, less investigated, and more controversial question

Figure 2.5. Evolution of the number of papers mentioning one of the expressions associated with location choice, mode of entry and performance in the psychic distance paragraphs in JIBS.



(Evans and Mavondo, 2002; Hakanson and Kappen, 2017; O'Grady and Lane, 1996; Vahlne and Johanson, 2017; Yildiz and Fey, 2016). According to one perspective, psychic distance increases internationalization costs related to information-seeking, training, adaptation (Meyer, 2001), and coordination (Saudagaran and Biddle, 1995). These costs are proportional to psychic distance and thus reduce firm performance abroad. It is also more difficult to build new relationships with customers and partners in psychically distant areas (Johanson and Vahlne, 2009). This can be to such an extent that information asymmetry (Gomez-Mejia and Palich, 1997) as well as opportunistic behaviors (Verbeke and Greidanus, 2009) rise, decreasing the likelihood of success. Psychic distance is therefore expected to be negatively associated with performance.

Nevertheless, O'Grady and Lane (1996)'s seminal article challenges the idea that performance increases as psychic distance decreases and introduce the idea of "psychic distance paradox." A psychically close market may seem so similar to decision-makers that the amount of learning they need to succeed will

be underestimated and thus neglected. In their study, only 22 percent of the Canadian firms they investigated were successful in the United States, despite (or, as the authors suggest, because of) a small psychic distance. Accordingly, O'Grady and Lane (1996) suggest that the relation between psychic distance and performance might not be linear.

Another interesting avenue for future research about the relationship between psychic distance and performance is suggested by the asymmetrical nature of psychic distances. It is indeed reasonable to expect that while "home psychic distance" (how distant the host country is perceived in the home country) drives location choice and mode of entry, "host psychic distance" (how distant the home country is perceived in the host country) drives performance. This idea is akin to the concepts of liability of foreignness (Zaheer, 1995) and animosity (Jung et al., 2002; Klein, 2002).

Cultural distance has been associated with the same dependent variables as psychic distance and for similar theoretical reasons, accentuating the perceived equivalence between the two concepts. Cultural distance is suspected to increase complexity and uncertainty, as well as costs related to training, monitoring, control (Tihanyi et al., 2005), and communication (Vachani, 1991). The management of local operations of overseas subsidiaries is more complex, the quality of information flow is impaired (Shenkar and Zeira, 1992), and information asymmetry increases agency costs (Gomez-Mejia and Palich, 1997). Firms select the least costly and least risky option when settling in a foreign country. They will therefore favor culturally close countries and, when they settle in culturally distant countries, they will commit less resources. This reasoning is supported by studies showing that cultural distance influences mode of entry (Gomez-Mejia and Palich, 1997). Firms favor exports and licensing over mergers, joint ventures, or wholly-owned subsidiaries in culturally distant countries (Contractor and Kundu, 1998; Hennart and Larimo, 1998; Kogut and Singh, 1988). Cultural distance also deters foreign direct investment (Li and Guisinger, 1991). Now, other studies provide mixed and inconclusive results about the relationship between cultural distance and mode of entry (Benito and Gripsrud, 1992a).

For instance, firms seem to prefer full control ownership (Erramilli, 1991) or international joint ventures (Buckley and Casson, 1996) in culturally more distant markets. The greater commitment of resources allows them to achieve a greater control over foreign subsidiaries and thus to limit uncertainty.

Once settled in a culturally distant host country, firms also struggle to understand business partners and to identify market opportunities (Simonin, 1999b), reducing performance. Consistent with this claim, Kashlak et al. (1998) show that cultural distance is positively associated with conflict within, and failure of, international joint ventures. Cultural distance has also been shown to affect negatively the success of international expansion (Luo and Peng, 1999) and to reduce the positive impact of MNEs' experience on sales growth (Uhlenbruck, 2004). Just like psychic distance, the positive consequences of cultural distances have also received far less attention in the literature (Stahl and Tung, 2014, 2015). Now a few studies suggest that the benefits associated with cultural distance might offset the costs incurred to overcome them (Reus and Lamont, 2009). A distant culture can provide different and possibly complementary capabilities (Shenkar and Zeira, 1992) which, once combined, can create a competitive advantage (Hamel, 1991). Because of the cultural shock it provokes, dealing with a distant culture sparks off innovation and creativity (Tihanyi et al., 2005). Distance is not systematically related to uncertainty and risk: differences do not necessarily imply difficulties.

This discussion raises the question of how psychic distance can add to our understanding of international expansion and performance compared with the insights brought by cultural distance. To answer this question, future research might benefit from more systematically distinguishing the mechanisms explaining how each kind of distance affects common outcome like location choice, mode of entry, and performance. For instance, the psychic distance paradox (O'Grady and Lane, 1996) highlights how individual perceptions (or misperception) of distances might lead to inadequate preparation and compromise success even in culturally similar countries. Alternatively, managers' ability to learn from culturally distant counterparts

may grow with experience, even if the cultural distance itself does not change. By incorporating systematically in their theoretical reasoning what is truly unique to psychic distance, i.e. its individual, perceptual, dynamic, and asymmetrical characteristics, researchers should be able to make sense of phenomena that cultural distance cannot explain.

2.3.4 What are the antecedents of psychic distance?

Psychic distance has often been described as a multi-dimensional concept encompassing cultural distance (Katsikeas et al., 2009; Yildiz and Fey, 2016), institutional distance (Arregle et al., 2016; Baack et al., 2015), structural, religious, and language differences (Brouthers and Lance, 2001), business differences (Liesch and Knight, 1999; O'Grady and Lane, 1996), differences in political regimes (Gray, 1997), and differences in education, industrial development, and regulations (Cuervo-Cazurra, 2006; Dellestrand and Kappen, 2012). The difficulty to operationalize psychic distance in archival studies is related to the blurring of the distinction between its constituents and antecedents. Archival researchers cannot rely on direct measures of managers' perceptions to account for psychic distances (Dow and Karunaratna, 2006). To circumvent this limitation of their research design, they typically use as proxies of psychic distance factors expected to prevent or disrupt information flows. This strategy is justified because we can expect managers to perceive greater difficulties when these factors grow stronger. When differences between home and host country increase, they generate barriers to learning (Liesch and Knight, 1999), impair the transfer of information (Cuervo-Cazurra, 2006), and increase the level of uncertainty for decision-makers. However, rather than treating these factors as dimensions of psychic distance, I suggest reinterpreting them as antecedents partially influencing managers' perceptions (Swift, 1999).

In the *Journal of International Business Studies*, the concept the most often associated with psychic distance after cultural distance is geographic distance. Coeurderoy and Murray (2008) used geographic distance as a proxy of psychic distance. Terpstra and Yu (1988) observed that these two

constructs were highly correlated and had the same implications on FDI, and therefore suggested that they were equivalent. Hashai (2011) also argued that geographic scope and psychic distance were similar. Nevertheless, most authors consider the two concepts as distinct (Arora and Fosfuri, 2000; Dow and Karunaratna, 2006; Johanson and Wiedersheim-Paul, 1975) although strongly related (Beugelsdijk et al., 2017; Hakanson and Ambos, 2010).

In addition, Dow and Karunaratna (2006) identified six other "psychic distance stimuli": differences in (1) cultures (Evans et al., 2000; Johanson and Vahlne, 1977), (2) languages (Cuypers et al., 2015; Tushman, 1978), (3) religions (Ronen and Shenkar, 1985; Triandis, 2000), (4) industrial development (Evans and Mavondo, 2002; Johanson and Wiedersheim-Paul, 1975), (5) education levels (Cavusgil, 1980; Johanson and Vahlne, 1977) and (6) political systems (Child et al., 2002; Goerzen and Beamish, 2003). These stimuli are also used as proxies of psychic distances (Boellis et al., 2016; Cuypers et al., 2015; Peeters et al., 2015).

Dow and Karunaratna (2006) do not confirm the impact of their psychic distance stimuli on psychic distance scores, but use them to evaluate their impact on the intensity of trade between a home and a host country. In the same vein, Peeters et al. (2015) used them as control variables when testing the impact of cultural distance on achieving cost savings targets. Dow et al. (2016) find a consistently significant negative impact of the psychic distance stimuli data for languages and religions on the level of ownership in foreign acquisition. Boellis et al. (2016) control for psychic distance using an aggregate indicator based on the psychic distance stimuli scores in their study on entry mode choice of family firms.

My analysis shows that there is an imbalance between the number of studies at the macro-level versus the individual-level. Proxies are often measured at country level with stable archival data and therefore evacuate by construction the individual, perceptual, dynamic, and asymmetric attributes identified as characterizing psychic distances. Moreover, whether, to what extent, and under which conditions these hypothesized antecedents of psychic

distance are both perceived and interpreted by managers as preventing or disrupting information flows remain empirical questions. There is to date limited evidence testing these relationships, mainly on cultural and geographical distances. Hakanson and Ambos (2010) have tested them explicitly as antecedents of their psychic distance scores and found a positive and significant impact. Finally, these factors do not contribute alone, equally, and consistently over time and across individuals to the formation of psychic distances; other factors at the country level, and more importantly other factors at the individual level, are likely to shape managers' perceptions.

Another macro-level type of driver of psychic distance has been relatively unexplored in the international business literature: the collective unconscious arising from a common history and shared archetypes. A people's culture goes beyond cultural dimensions based on values; they also encompass common history, living habits, folklore, etc. All of these experiences shared through centuries of common history contribute to forming a "collective unconscious", which in turn shapes perceptions shared by all members of that community. Jung (1959) proposes that *"in addition to our immediate consciousness, which is of a thoroughly personal nature and which we believe to be the only empirical psyche (…), there exists a second psychic system of a collective, universal, and impersonal nature which is identical in all individuals. This collective unconscious does not develop individually but is inherited. It consists of pre-existent forms, the archetypes, which can only become conscious secondarily and which give definite form to certain psychic contents."* This relates to the distinction Schwartz (2011) makes between cultural orientations and individual values. Disentangling the two allows the investigation of the normative culture of a society exerts its influence onto its members.

This collective unconscious is also the product of collective experiences which shape the way individuals perceive themselves as members of this culture (ingroup) and relative to members of other cultures (outgroup). The collective unconscious shapes the collective representations members of a societal group hold towards members of others societal groups (Levy-Bruhl, 1910). This

collective unconscious permeates educational curricula and national media: other peoples or communities are uniformly depicted forming one coherent vision of "the other". Within a cultural environment, children and adults are exposed to the same messages shaping directly their perception of the inhabitants of another country. These messages convey shared stereotypes influencing how each community, nation, or culture sees itself in the world and how it perceives other communities, nations, or cultures relative to itself. Such a shared perception of others shaped by collective experiences is distinct from, and need not be related to, other kinds of macro-level distances and idiosyncratic individual experiences. Being perceptual and collective, it can be related to the notion of animosity (Jung et al., 2002; Klein, 2002).

Perceived distance is something which is shared within a community, or what one considers their in-group (Billig and Tajfel, 1973; Tajfel, 1970, 1981): an average perception of each of the other communities constituting the out-group, often characterized, just like most of the literature on distance, negatively ("Us versus Them" is animosity while "Us versus Everyone" is ethnocentrism; Klein (2002)). Psychic distance shares traits with the notion of national animosity present in cross-cultural psychology (*"At the macro level, national animosity may be conceptualized as an individual's resentment of how his or her country has suffered because of the actions of another country. (…) National animosity thus entails an individual's feelings toward threats on his or her country's national superiority, competitiveness, and sovereignty. (…) At a more micro level, personal animosity is an individual's resentment toward another country because of negative personal experiences he or she has with the foreign country or with people from that country."*, Jung et al., 2002, p.528). Aggregating individual perceptions provides interesting insights on how on average nationals from one country perceive another (Hakanson and Ambos, 2010) and thus help predict their attitude and behavior in various international business activities. National cultures may not only be defined by various attributes upon which they differ (Hofstede's cultural dimensions, for instance), but also by the way they treat these differences (i.e. neglect or magnify them) and the extent to which they associate them with difficulties.

Another possible country-level antecedent of psychic distance unrelated to country-level differences is within-country diversity (Dow and Larimo, 2008; Tung and Verbeke, 2010). In highly diverse countries, people will often be in contact with, or at least frequently exposed to, a variety of languages, religions and ethnicities (Aronson and Wilson, 2014; Kwan et al., 2015; Zajonc, 1968). They will thus develop a familiarity and an ability to interact with people from different cultures. Inhabitants of highly homogeneous countries are less likely to develop such a familiarity and ability. It follows that the levels of psychic distance of a person from a highly diverse environment are likely to be lower than the ones from an individual from a much less diverse environment. This reasoning also introduces the third set of antecedents of psychic distances: individual characteristics and experiences.

A last type of antecedents of psychic distance, recently introduced in the IB literature from psychology, acknowledges that individual characteristics are likely to influence perceived differences and difficulties. Dow and Karunaratna (2006) indicate that managers' psychic distances depend on both the psychic distance stimuli they identified and the decision-maker's sensitivity to those stimuli (p. 580): *A manager's perception of psychic distance (PDp) will be a function of the psychic distance stimuli he or she is exposed to, but that perception will also be moderated by the decision-maker's sensitivity to those stimuli.* This sensitivity is shaped by cognitive biases (Baack et al., 2015; Em, 2014) and is likely to vary with age, gender, international experience (Child et al., 2002; Dow and Larimo, 2008; Sousa and Bradley, 2006; Zhao et al., 2004), education level (Dichtl et al., 1990; Dow and Karunaratna, 2006), or cultural intelligence (as showed in Chapter 3). Business and leisure travels make individuals directly experience foreignness and differences. Through repeated interactions, they gradually develop a sentiment of familiarity which thus contributes to decreasing the psychic distance they perceive.

Baack et al. (2015) point out that individual-level antecedents of psychic distance remain unexplored (Dow and Larimo, 2008; Hakanson and Ambos, 2010; Sousa and Bradley, 2006). Indeed, capturing the influence of these individual determinants on psychic distance requires moving away from

country-level indicators to ask directly respondents to report the distance they perceive towards host markets (as explained in the introduction of Chapter 3). It also requires explaining individual scores themselves, and thus not to aggregate them at a higher level. For instance, because the scores computed by Hakanson and Ambos (2010) are aggregated at the country-level, they capture the impact of both macro-level differences and collective perceptions but erase systematic variations explained by individual characteristics (one can refer to the discussion on cognitive biases in Chapter 1). There are reasons to expect individual-level antecedents, and these individual antecedents of psychic distances offer thus a fruitful avenue for future research (I explore this in Chapter 3).

2.4 Discussion

In this chapter, I did a content analysis and a lexicographic analysis of 47 years of publications in the *Journal of International Business Studies* about the concept of distance. The purpose of this investigation was to provide a better understanding of the specificity of psychic distances in terms of attributes, consequences, and antecedents, and to make it clearly distinct from cultural distance. Indeed, establishing the content (what a construct is) and discriminant (what a construct is not) validity of a concept requires an attention to its complete nomological network, showing how it differs from the nomological network of other related concepts (Cronbach and Meehl, 1955).

2.4.1 Main conclusions

This analysis revealed roughly two periods. In the first period (1977-2005)[9], the two main attributes of the initial definition from Beckerman (1956), individual and perceptual, were progressively lost, while the factors preventing the flow of information were emphasized. This conceptual "drift" (Suddaby, 2010) or "stretching" (Podsakoff et al., 2016) made the construct of psychic distance either undistinguishable from the construct of cultural distance (Kogut and Singh, 1988) or the result of a broad set of macro-level

[9]Before Dow and Karunaratna (2006)

distances (Dow and Karunaratna, 2006). In the second period (2006-2017), a renewed attention to the individual and perceptual attributes of psychic distance sparked new conceptual developments grounded in social psychology (Baack et al., 2015). These developments not only reinstated the distinction between psychic distance and other types of distance (especially cultural distance), but also revealed two additional distinguishing attributes: the dynamic and possible asymmetry resulting from its individual and perceptual nature. This evolution of the distinction between psychic distance and cultural distance is represented in Figure 2.6, illustrated by quotes from key psychic distance papers.

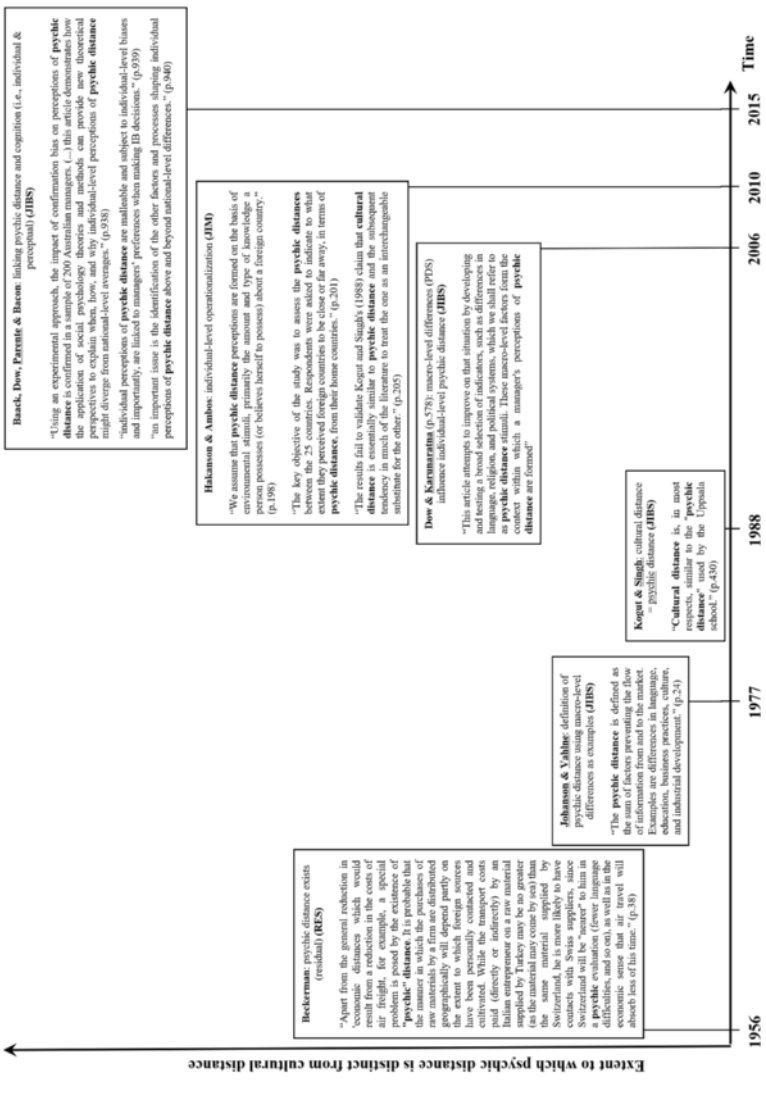


Figure 2.6. Evolution of the concept of psychic distance in International Business.

This content analysis concludes that psychic distance is now conceptualized as (1) individual, (2) perceptual, (3) dynamic, and (4) asymmetrical. The identification of these four attributes contributes to the literature in two different ways. First, the conceptual and empirical clarification of psychic distance and its distinction from other types of distances should help dissipate confusions previously identified in the literature (Kogut and Singh, 1988), reconcile conflicting observations, and prevent future misunderstandings within the field of International Business. Constructs are the building blocks of our theories (Bacharach, 1989). Therefore, the prior lack of conceptual clarity and discriminant validity of psychic distance made communication less efficient, slowed down scientific progress, and threatened the accumulation of knowledge in the field (Locke et al., 2012; Molloy et al., 2011; Suddaby, 2010).

2.4.2 Limitations

This chapter has some limitations. First, my conclusions are subject to single author bias. Paragraph retrieval was done on the complete corpus with a set of predefined keywords (reported in Table 2.2) to ensure replicability. Statistics about frequencies and cooccurrences of terms were also automated and based on a set of predefined keywords (reported in Table 2.4). However, I exerted discretion in keywords selection and paragraph interpretation. While I submitted these selection and interpretation to the scrutiny of experts in the field, the attributes and trends I associated with psychic distance might deserve additional investigations.

Second, my conclusions are also, to some extent, subject to single source bias. I focus on the *Journal of International Business Studies* because it is the leading journal in the field of International Business. However, other outlets (for instance, the *Journal of International Marketing* or the *Journal of World Business*) and other fields (like social psychology) have also contributed to the development of the concept of psychic distance. While it is reasonable to assume that publications in the *Journal of International Business Studies* incorporate contemporaneous conceptual and operational developments from

other outlets and fields, it is also possible the periods I observed, first of conceptual drift and then of conceptual clarification, might be specific to this journal. A replication of this study including a broader set of journals might reveal different approaches and uses of the construct of psychic distance.

2.4.3 Avenues for further research

Despite these limitations, I believe that the contributions of this chapter to the clarification of the concept of psychic distances, especially the disctinction between four distinguishing attributes, open several promising avenues for future research in the field of International Business.

First, incorporating individual perceptions of distances in our models could increase our ability to explain how managers select locations (Kogut and Singh, 1988), choose modes of entry (Hosseini, 2008), establish legitimacy (Kostova and Zaheer, 1999; Xu and Shenkar, 2002), or succeed in foreign locations (O'Grady and Lane, 1996; Pedersen and Petersen, 2004; Sirota and Greenwood, 1971). Current models, like gravity equations (Anderson, 1979b; Tinbergen, 1962; Zwinkels and Beugelsdijk, 2010), account for systematic differences between countries. However, they do not capture the systematic impact on these outcomes of individual characteristics of the managers making decisions. A substantial portion of currently unexplained variances might thus be driven by individual biases and systematic distortions in the perception of foreign locations.

Second, exploring how asymmetric perceptions might affect success leads to another set of interesting questions. For instance, success in a foreign location might be driven by (1) the distance perceived by managers in the home country, (2) the distance perceived by managers or customers in the host country, and by (3) their interaction. O'Grady and Lane (1996) suggested that the failure of Canadian retailers was due to their underestimation of the differences between Canadian and American market, explaining in turn their failure to learn and adapt. Now, it might be hypothesized that Canadian retailers failed because American employees and customers perceived Canadian retailers as more different and less legitimate. It might

also be argued that a combination of both under-estimation of differences on one side and over-estimation of differences on the other side of the border was necessary to increase the probability of failure. Exploring the dynamics implied by asymmetric perceptions might prove useful in explaining exchanges, learning, and performance.

Finally, an attention to individual biases and to the factors influencing these biases over time might yield valuable practical contributions and managerial implications. Country-level differences have a strong inertia and are not easily influenced. They are therefore essentially exogenous to decision making. By contrast, individual perceptions are dynamic and might be managed through selection, training, and socialization. This leads to another major avenue for research about the antecedents of psychic distance. In measurement theory (Allen and Yen, 2001), a measurement is assumed to have three components: the true score, the systematic error, and the random error. By analogy and extension, one might think of psychic distance as having four components: macro-level differences influencing perceptions (captured by operationalizations based on psychic distance stimuli), systematic distortions introduced by collective experiences (captured by the aggregation of individual perceptions), systematic distortions introduced by individual experience (yet to be investigated), and random error. Discourses propagated within a community or individual idiosyncratic experiences might alter managers' sensitivity to various stimuli, as well as what they perceived as a risk or as an opportunity. What drives individual differences in sensitivity to specific differences between locations and people? What factors might shape individual perceptions and thus their decisions and actions towards and in foreign locations and people? What makes a manager more or less prone to perceive larger differences towards a location or its inhabitants, and what will make him or her more or less prone to equate these differences with difficulties? Future research should bring valuable insights about the relative importance of each component in different contexts, as well as what drives collective and individual experiences.

2.4.4 Next chapters

Notwithstanding these limitations, it is reasonable to affirm that psychic distance is a concept distinct enough from other types of distances to warrant further work on its operationalization. Using X-Culture data, I develop in Chapter 3 a methodology to produce country-level, dyadic psychic distance scores from individual perceptions of differences (PDR) and difficulties (PDC) within international teams. I show that differences and difficulties are two related but distinct facets of psychic distance, characterized by a relatively low correlation (0.35), and I suggest that these two facets might be driven by different antecedents. Accordingly, in Chapter 4, I investigate the relationship between the psychic distance scores produced in Chapter 3 and the country-level antecedents of psychic distance identified in Chapter 2. However, cultural distance, geographic distance, and language differences do not seem to affect individual perceptions in the sample. In Chapter 5, which serves as external validation of the psychic distance scores I calculated in Chapter 3, I investigate whether different types of distance (cultural distance, psychic distance, and for psychic distance, perceived differences and perceived difficulties) have different consequences on outward bilateral foreign direct investment.

Chapter 3

Calculating dyadic psychic distance scores from individual perceptions

USING X-Culture individual data, I analyze individual level determinants of expected differences and difficulties in cooperation (while controlling for team level characteristics since the setup is global virtual teams). On the basis of this analysis, I calculate aggregated, cross-country dyadic psychic distance scores. I explore how including personal characteristics of the respondents, team properties, and/or country dummies (dyads) influences the dyadic psychic distance scores. The dyadic psychic distance scores I obtain are asymmetrical as in Hakanson and Ambos (2010), and allow me to distinguish between two different facets of psychic distance (perceived differences and perceived difficulties).

3.1 Introduction

Since its introduction in the field of international business by the Uppsala school (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Hornell et al., 1972), the concept of psychic distance has received a lot of attention. Mostly defined as "factors preventing or disturbing the flow of information between potential and actual suppliers and customers", psychic distance has been used to explain a wide variety of phenomena, such as international expansion (Banerji and Sambharya, 1996), patterns of expansion (Ellis, 2000, 2008; Evans and Mavondo, 2002), market selection and entry mode (Arora and Fosfuri, 2000; Eriksson et al., 1997), and difficulties and costs of doing business abroad (Gillespie et al., 1999; Johanson and Vahlne, 2009; Meyer, 2001; Saudagaran and Biddle, 1995). Thus the focus was initially on the consequences of psychic distances and its operationalization using archival data at country-level (Dunning et al., 2007a; Kogut and Singh, 1988; Sethi et al., 2003; Yeniyurt et al., 2009) (with few exceptions (Hakanson and Ambos, 2010; Prime et al., 2009; Sousa and Bradley, 2006, 2008)). This has resulted in a lack of attention for its distinguishing attributes, fueling concerns about its discriminant validity.

As extensively discussed in the previous chapter, recent studies about psychic distance (Baack et al., 2015) have attracted researchers' attention back to the two key distinguishing features of this concept as it was initially defined by Beckerman (1956): individual and perceptual. They also explored two additional characteristics resulting from this individual and subjective nature of psychic distances: their asymmetry (Hakanson and Ambos, 2010) and dynamic character (Baack et al., 2015). Indeed, research in social psychology suggests that individual characteristics may shape people's perceptions, attitudes, and behavior towards distant others. Possible antecedents suggested by this literature include for instance cultural intelligence (e.g. Ang et al., 2007; Earley, 2003; Earley and Mosakowski, 2004a,b; Earley and Peterson, 2004; Thomas and Maio, 2008; Thomas et al., 2015) or global mindset (Levy et al., 2007; Nijssen and Douglas, 2008;

Sampson and Smith, 1957).

Since the impact of individual-level attributes on perceived differences and difficulties cannot be investigated with the archival country-level data mostly used so far, we still know very little about these micro-foundations of psychic distance. In addition, the relationship between country-level characteristics and perceived distances itself has usually been assumed and has, to the best of my knowledge, only been tested by Hakanson & Ambos (2010). Finally, the positive relationship between perceived differences and perceived difficulties has usually been assumed rather than tested. This chapter addresses these gaps by assessing the relative impact of individual- and country-level determinants on both perceived differences and perceived difficulties, while controlling for team-level characteristics. By extension, it also contributes to the conceptual discussion of psychic distance by assessing whether, and to what extent, psychic distance scores can indeed be characterized as individual, perceptual, dynamic, and asymmetrical, and thus whether the distinction between psychic distance and cultural distance is meaningfgul.

To address these questions, I conduct an exploratory analysis of the impact of country, team and individual characteristics on self-reported psychic distance scores from individuals to their respective teams. The sample consists of 2,808 bachelor and master students working in 587 virtual, international, and geographically dispersed teams. Participants worked for two months on a common business plan. Each team was composed of 4.14 members on average from at least 4 different countries. Each team had a different mix of countries of origin, and participants varied in terms of age, gender, English proficiency, cultural intelligence, and international experience. I exploit these variations in team composition and individual characteristics to explain differences and difficulties perceived ex ante by each team member in the context of this teamwork. This allows me to estimate the relative strength of individual-level and country-level predictors on psychic distance, and thus to estimate to what extent psychic distance is indeed individual, perceptual, and dynamic. This procedure also allows me to test whether perceived differences and difficulties

are related and driven by the same factors.

Then, I develop a methodology to infer dyadic distances between pairs of countries, conceptually similar to those reported in Hakanson and Ambos (2010) but based on individual-to-team (rather than individual-to-country) assessments of perceived differences and difficulties. More specifically, I compute distances between pairs of countries which account for one, two, or three sets of predictors: differences between countries of origin, differences in team composition, and individual differences. This procedure creates unidirectional distances between pairs of countries which can be further decomposed per set of predictors. Such a decomposition of distances allows a test for asymmetry as well as an investigation of factors which might drive this asymmetry.

I observe that while country dyads explain part of the psychic distance, individual characteristics (especially the gender of the respondent, their cultural intelligence and their international experience, and team-level characteristics, notably the number of countries present on the team) are predictors of psychic distance. The analyses performed here show that only on very rare occasions do the country pairs tell us something about psychic distance: the coefficients associated with country pairs are mostly not significant.

This chapter aims to contribute in two different ways. First, I provide evidence that psychic distance is impacted by variables at three different levels: individual, team, and country. This observation indicates that whereas it is generally assumed that only the home and the host countries play a role in the assessment of psychic distance, variables at other levels (here, team and individual) have a key role to play. Second, I show that psychic distance as perceived differences and psychic distance as perceived difficulties are distinct. Differences do not necessarily translate into difficulties, shedding a new light on the conceptual discussion about positive and negative effects rendered in Chapter 2. This constitutes a step towards a more positive interpretation of distances, which are generally assumed to bring forth undesirable outcomes

while recent studies (Stahl and Tung, 2014, 2015) acknowledge that diversity can foster creativity and synergies.

This chapter is organized as follows. I will first present the conceptual background of this study and the research questions I am interested in investigating. Then I will present the data and the methodology I used to obtain dyadic country scores, as well as the different analyses I ran. Third, I present the results I obtain from my regression analysis. I conclude by acknowledging the assumptions behind and limitations of my study and discussing its implications for the distance literature and international business at large.

3.2 Conceptual background and research questions

The analysis of the literature in Chapter 2 highlighted four distinguishing attributes of psychic distances: individual, perceptual, dynamic, and asymmetrical. Whether self-reported measures of psychic distances display such characteristics is an open empirical question. Few studies have relied on perceptual measures of psychic distances (Dow, 2000; Ellis, 2008; Evans and Mavondo, 2002; Goerzen and Makino, 2007; Gray, 1997; Hakanson and Ambos, 2010; Leonidou and Katsikeas, 1996) and we therefore know little about their psychometric properties. Investigating these properties is however necessary to establish the construct validity of psychic distance scores by showing that they are systematically shaped by individual characteristics (individual), susceptible to evolve over time (dynamic), and different depending on the direction of the relationship (asymmetric). This chapter is therefore an exploratory analysis of the properties of psychic distance scores guided by several research questions. I will now develop these research questions in three steps: first the distinction between perceived differences and perceived difficulties; second the influence of various individual attributes on perceived differences and difficulties.

3.2.1 Perceived differences and perceived difficulties

Psychic distance is commonly defined as differences between countries which are likely to disturb flows of information between suppliers and customers. These differences are thus assumed to have negative consequences for international business (increased difficulties, higher risk and uncertainty, lower performance and survival rates, etc.), i.e. greater differences are positively associated with greater difficulties. However, some studies acknowledge that the relationship between differences and difficulties is not necessarily positive and linear (O'Grady and Lane, 1996). Other studies even argue that differences can be beneficial in terms of learning opportunities, synergies and creativity, for instance in an exploration/exploitation perspective (He and Wong, 2004; March, 1991; Raisch and Birkinshaw, 2008). Therefore, Yildiz and Fey (2016) argue that the "extent" (difference) and the "effect" (difficulty) should be investigated separately. Going beyond the near-far continuum usually associated with distances, this distinction between extent/difference and effect/difficulty permits testing whether larger perceived differences are indeed associated with greater perceived difficulties and expectations of negative outcomes (O'Grady and Lane, 1996; Stahl and Tung, 2015; Stahl et al., 2016). Based on previous discussion (Chapters 1 and 2), country-level differences translate, in the mind of individuals, through filters, prisms and biases, into perceived differences which are subsequently associated with a level of perceived difficulties. This leads to the first research question addressed in this chapter:

> **RQ3.1:** *What is the relationship between psychic distance as perceived differences and as perceived difficulties?*

3.2.2 Influence of personal characteristics on psychic distance

Baack et al. (2015) mention that individual-level antecedents of psychic distance remain unexplored (Dow and Larimo, 2008; Hakanson and Ambos, 2010; Sousa and Bradley, 2006). In this chapter, I investigate four individual

characteristics likely to have a systematic impact on individual perceptions of either differences or difficulties: gender, age, cultural intelligence, and international experience. Although other characteristics are likely to influence perceptions, like the Big Five personality traits (Digman, 1990; Goldberg, 1993), I focus on these as a starting point. If any of these four individual characteristics affect systematically perceived differences and difficulties, this would provide some evidence of the individual character of psychic distance scores. In addition, if perceived differences and difficulties are more specifically affected by age, cultural intelligence, and international experience, which are changing (or susceptible to change) over time, this would also provide some indirect evidence of the dynamic nature of psychic distance scores.

Gender. Perceived differences and, perhaps even more so, perceived difficulties are likely to be affected by gender. Prejudices against women vary in nature and intensity across countries (Inglehart and Baker, 2000). For instance, the gender role division in developing countries is often more pronounced than in developed countries (Newburry et al., 2008). In societies characterized by low gender egalitarianism (House et al., 2004), women are often considered *"too emotional and irrational to lead organizations"* (Paris et al., 2009, p.1397). Female expatriates often experience difficulties to adapt in countries where there is a strong cultural bias against them, for instance in the Middle East, Latin America, and Japan (Thai and Cateora, 1979). Women may therefore be more sensitive to cultural differences and may expect more or less difficulties depending on the cultural background of their colleagues and the severity of the prejudice they expect these colleagues to hold against them. Because of the same prejudices, men may also feel more or less comfortable working with women, increasing the difficulties they perceive depending on where they come from.

From a different perspective, several studies suggest that women exhibit higher trust towards out-group members than men (Bohnet and Zeckhauser, 2004; Maddux and Brewer, 2005; Muethel and Bond, 2013). In other words, they are more likely to trust team members who differ from them in terms of

age, gender, or culture, reducing systematically the difficulties they are likely to perceive. Overall, I can expect gender to have an impact on psychic distance, but the sign of this impact is difficult to determine a priori for both perceived differences and perceived difficulties.

> **RQ3.2:** *What is the relationship between gender and perceived differences or difficulties?*

Age. I expect age to have an incidence on how people perceive both differences and difficulties. Alpander (1973) argues that a people's *"set of values becomes stronger and more rigid"* as they grow older. They become thus *"less flexible and more resistant to change."* Older people are likely to see differences as sources of risk, and age is also negatively related to risk tolerance (Brooks et al., 1999; Jagannathan and Kocherlakota, 1996; Mantel, 2000). On the contrary, Harpaz (1990) observes that young people tend to value more "autonomy" and "opportunity to learn". Riefler et al. (2012) argue *"younger people tend to be more cosmopolitan than elderly people"*, because *"young people tend to be more exposed to international mass media, travel more, and often speak more foreign languages."* Young people are thus likely to see differences as an interesting feature of working in group (e.g., they reduce group think, one can gain insight from other cultures and countries, etc.), providing an opportunity to learn from others' experiences and points of view, or as an added difficulty impeding performance. This would suggest that perceived difficulties should increase with age.

There are however also reasons to expect the opposite relation. Age is positively associated with greater comfort dealing with uncertainty (Makhija and Stewart, 2002). Older people might thus feel more confident in their ability to deal with the uncertainty introduced by differences within the team and might thus perceive fewer difficulties with those differences. The above discussion raises the following question:

RQ3.3: *What is the relationship between age and perceived differences or difficulties?*

Cultural intelligence. Cultural intelligence (Ang et al., 2007; Earley and Ang, 2003; Earley and Mosakowski, 2004b; Earley and Peterson, 2004; Johnson et al., 2006; Ng and Earley, 2006; Shapiro et al., 2008; Thomas and Maio, 2008; Thomas et al., 2015) can be defined as the *"individual's capability to function and manage effectively in culturally diverse settings"* (Ang et al., 2007, p.336). Individuals who are considered culturally intelligent are keener on striving in (and enjoying) an intercultural environment. To the extent that it reflects someone's adaptive skills, it should be related to perceiving what one should adapt to, namely the differences in environments. Culturally intelligent people are likely more apt at enjoying differences and at managing the difficulties usually associated with them. They will thus likely perceive fewer differences and difficulties. The above discussion raises the following question:

RQ3.4: *What is the relationship between cultural intelligence and perceived differences or difficulties?*

International experience. International experience is the fact of having been in contact with people from different cultural environments. Such contacts are likely to affect someone's perception of differences and difficulties, but the nature of this influence is unclear. Exposure to differences might foster greater awareness of such differences, or on the contrary may make others more familiar and thus appear less different. Conversely, an individual with no international experience may either notice only the most obvious differences, neglecting more subtle ones (O'Grady and Lane, 1996), or on the contrary expect greater differences than there are. As for perceived difficulties, whether they are magnified or reduced by international experience might depend on whether such prior experience was successful or not. Therefore, whether an individual with significant international experience is more likely to make accurate assessment of differences and difficulties (i.e. differences and

difficulties are neither overlooked nor overestimated) than someone with little to no experience also remains an open empirical question.

> **RQ3.5:** *What is the relationship between international experience and perceived differences or difficulties?*

3.3 Data and Method

3.3.1 Population and sample

Context of the study. The database used for this study is from a global virtual team project set in higher education in 2012 and 2013. Participants worked for eight weeks in cross-national teams of about seven persons on a business plan for a multinational firm looking for business opportunities in a market in which it was not yet present. Whenever possible, each nationality was represented by no more than one member in each team. Aside from team composition and team member geographical dispersion, this collaborative environment was designed to closely resemble a professional corporate environment, mitigating to some extent issues related to the reliance on students (Bello et al., 2009; Schwartz, 2007; Stahl et al., 2010). For a period of about two months, participants experienced challenges related to geographic dispersion, varying degrees of command of a common working language and technological tools, and cultural and personality differences. Just like employees in typical working environment, they did not choose their team members.

In addition, their professors (called managers in the context of this course) could have different requirements about the task and complementary work (e.g. oral presentations, weekly reflective portfolios, analysis of academic literature, etc.). The participants composing each team were thus often dealing with conflicting perspectives and expectations (their own, those of other team members, and those of managers) and experienced different levels of pressure. This dataset has already been used in several academic studies (Gonzalez-Perez et al., 2014; Magnusson et al., 2014; Taras et al., 2013, 2014) mostly focusing

on learning and team diversity. So far, the data has not been used to explore the extent to which psychic distance scores are country- or individual-specific.

Sample selection. I removed missing observations through listwise deletion, which left a total of 4,406 observations. Then, I retained only participants whose team members' countries of origin were all represented at least 15 times in the original sample to reduce the noise that participants whose country was only evaluated by peers too few times would bring. This left a total of 3,300 observations. Third, I only considered participants who were in teams of at least 3 (i.e., data was available for at least 3 members of the team), and whose team members' countries of origin were all represented more than 10 times in the original sample to reduce the noise that participants whose country was only evaluated by peers too few times would bring. This last filter left me with 2,808 participants to be included in subsequent analyses.

Students coming from 44 different countries of origin participated (cf. distribution in Table 3.1; 112 countries were removed after listwise deletion[1]). Most participants come from the United States (USA) (22.4% of the sample after listwise deletion of the missing values and threshold filters have been applied) followed by Brazil (BRA) (7.83%), Pakistan (PAK) (6.27%), Malaysia (MYS) (6.13%) and Colombia (COL) (5.34%). 52.07% of the participants are women and the average age is 23.00 years (sd = 4.05). All participants were enrolled in an international business course at the undergraduate or graduate level and their joint project counted for about 20% to 40% of the student's overall grade in this course.

[1]Aruba, Afghanistan, Albania, Argentina, Armenia, Antigua & Barbuda, Australia, Austria, Azerbaijan, Burundi, Belgium, Benin, Burkina Faso, Bangladesh, Bulgaria, Bahrain, Bahamas, Bosnia & Herzegovina, Belarus, Bermuda, Bolivia, Canada, Côte d'Ivoire, Cameroon, Congo - Kinshasa, Costa Rica, Cuba, Cayman Islands, Cyprus, Czechia, Denmark, Algeria, Egypt, Eritrea, Ethiopia, Finland, Fiji, Georgia, Greece, Grenada, Guatemala, Guyana, Hong Kong SAR China, Honduras, Croatia, Haiti, Iran, Iraq, Iceland, Israel, Jamaica, Jordan, Kenya, Kyrgyzstan, Cambodia, Kuwait, Laos, Lebanon, Liberia, St. Lucia, Sri Lanka, Luxembourg, Macau SAR China, Morocco, Moldova, Madagascar, Maldives, Myanmar (Burma), Montenegro, Mongolia, Mauritius, Malawi, Namibia, Niger, Nicaragua, Nepal, New Zealand, Panama, Philippines, Palau, Puerto Rico, Portugal, Palestinian Territories, Qatar, Saudi Arabia, Sudan, Senegal, Singapore, El Salvador, Somalia, Serbia, Slovenia, Sweden, Swaziland, Seychelles, Syria, Turks & Caicos Islands, Togo, Tajikistan, Turkmenistan, Tonga, Trinidad & Tobago, Tunisia, Tanzania, Uganda, Uzbekistan, St. Vincent & Grenadines, Venezuela, South Africa, Zambia, Zimbabwe

Table 3.1. Sample Composition.

Country	Initial_Sample	Final_Sample
United States (USA)	2872	629
Brazil (BRA)	602	220
Pakistan (PAK)	430	176
Malaysia (MYS)	509	172
Colombia (COL)	569	150
Poland (POL)	348	109
India (IND)	619	104
United Arab Emirates (ARE)	335	86
Ghana (GHA)	410	83
China (CHN)	285	81
Germany (DEU)	188	78
Lithuania (LTU)	322	66
Spain (ESP)	269	63
Indonesia (IDN)	327	63
Ukraine (UKR)	108	52
Ecuador (ECU)	79	50
South Korea (KOR)	183	50
Turkey (TUR)	385	46
Nigeria (NGA)	88	44
Estonia (EST)	73	40
Mexico (MEX)	176	34
Italy (ITA)	214	30
Romania (ROU)	207	29
United Kingdom (GBR)	83	27
Netherlands (NLD)	56	27
France (FRA)	122	26
Hungary (HUN)	55	25
Botswana (BWA)	53	23
Dominican Republic (DOM)	37	21
Ireland (IRL)	33	20
Latvia (LVA)	35	20
Switzerland (CHE)	95	19
Taiwan (TWN)	76	15
Chile (CHL)	52	14
Russia (RUS)	73	14
Japan (JPN)	70	13
Norway (NOR)	18	13
Vietnam (VNM)	36	13
Barbados (BRB)	123	12
Kazakhstan (KAZ)	73	12
Oman (OMN)	36	12
Peru (PER)	45	11
Thailand (THA)	39	9
Slovakia (SVK)	**72**	**7**
Total	10880	2808

Table 3.2 shows the number of teams for each country pair. For instance, there were 35 teams with participants from both Pakistan (PAK) and Brazil (BRA), 12 teams with participants from both Germany (DEU) and Colombia (COL), etc. If the number of teams with participants coming from both countries is higher than 9, then this country dummy is included in the regressions. For example, in the Ukrainian (UKR) subsample (i.e., all of the participants are originally from Ukraine), the following country dummies were included: Colombia (COL), Ecuador (ECU), Spain (ESP), Ghana (GHA), Ireland (IRL), Nigeria (NGA), and the United States (USA), given that participants from these countries have been in a team in which a Ukrainian was present more than 9 times.

Table 3.2. Number of teams selected for each country pair.

CTRY	ARE	BRA	BRB	BWA	CHE	CHL	CHN	COL	DEU	DOM	ECU	ESP	EST	FRA	GBR	GHA	HUN	IDN	IND	IRL	ITA	JPN	KAZ	KOR	LTU	LVA	MEX	MYS	NGA	NLD	NOR	OMN	PAK	PER	POL	ROU	RUS	SVK	THA	TUR	TWN	UKR	USA	VNM
ARE	90	29	1	3	0	1	12	11	6	15	0	8	0	5	8	4	4	21	10	3	0	2	0	4	5	9	2	28	1	0	2	1	4	6	13	2	1	2	0	6	1	5	65	1
BRA	29	326	0	19	18	0	14	134	14	0	2	5	2	2	4	3	2	11	11	3	3	7	0	11	2	0	11	116	3	40	3	6	35	0	25	7	6	0	1	26	0	3	196	4
BRB	1	0	12	0	1	0	7	10	2	0	0	4	0	0	1	6	0	0	1	0	0	0	3	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	1	1	0	0	5	0
BWA	3	19	0	23	3	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	6	0	7	2	0	0	0	3	0	0	37	0
CHE	0	18	1	3	19	0	1	1	3	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	1	1	0	0	3	0	0	0	0	0	1	2	0	0	28	0
CHL	1	0	0	0	0	14	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	0	8	0	0	1	1	0	0	1	0	1	22	0
CHN	12	14	7	0	1	0	83	27	7	0	5	16	2	5	4	12	1	4	9	6	5	1	3	2	8	0	1	18	7	0	0	1	32	1	10	4	2	1	0	5	1	6	73	2
COL	11	134	10	0	1	1	27	212	12	0	1	5	0	7	11	15	0	2	17	20	5	0	6	7	4	0	11	68	9	33	2	1	8	0	5	4	3	0	9	10	0	12	81	2
DEU	6	14	2	1	3	0	7	12	88	3	7	11	3	2	3	11	9	7	12	2	3	2	2	10	19	0	1	17	8	3	0	1	22	0	4	1	2	1	0	8	10	3	63	1
DOM	15	0	0	0	0	0	0	0	3	21	1	4	1	2	4	3	0	2	8	0	0	0	0	0	3	0	0	6	2	0	1	1	2	4	3	0	0	0	0	1	0	3	4	1
ECU	0	2	0	0	0	0	5	1	7	1	52	10	0	3	1	28	2	0	11	0	1	0	0	1	3	6	7	0	32	0	8	0	3	0	3	2	0	1	0	1	1	23	69	0
ESP	8	5	4	0	1	0	16	5	11	4	10	65	6	4	2	2	5	6	4	0	3	0	1	14	19	4	2	14	11	0	3	0	22	2	3	2	1	1	0	1	0	10	44	2
EST	0	2	0	0	1	2	0	3	1	0	6	40	0	1	1	1	0	16	15	0	0	0	1	7	5	0	1	9	0	0	0	0	16	0	4	1	1	0	0	6	0	2	46	1
FRA	5	2	0	1	0	0	5	7	2	2	3	4	0	28	1	5	1	4	7	2	0	0	0	5	1	1	0	4	1	0	1	0	5	0	2	2	0	1	0	1	1	3	22	1
GBR	8	4	1	0	1	0	4	11	3	4	1	2	1	1	29	3	0	1	5	8	0	1	0	2	3	0	0	1	0	0	0	0	7	1	3	4	0	0	0	2	0	3	17	1
GHA	4	3	6	0	0	0	12	15	11	3	28	2	1	5	3	101	1	1	41	1	8	1	5	3	18	2	4	4	19	1	7	0	10	1	12	8	2	0	4	1	1	12	69	4
HUN	4	2	0	0	0	1	0	9	0	2	5	0	1	0	1	27	3	1	0	0	0	0	0	0	1	3	0	14	2	0	0	1	13	0	4	0	0	0	0	4	7	5	16	1
IDN	21	11	0	0	0	0	4	2	7	2	0	6	16	4	1	1	3	63	25	1	2	0	0	3	4	6	1	6	0	0	1	0	27	1	6	1	1	4	1	0	2	1	78	0
IND	10	11	1	0	0	0	9	17	12	8	11	4	15	7	5	41	1	25	128	1	10	0	2	3	8	1	2	20	9	5	5	0	26	2	21	8	1	0	0	2	1	6	99	4
IRL	3	3	0	0	0	0	6	20	2	0	0	0	0	2	8	1	0	1	1	20	0	0	0	0	0	0	1	1	2	0	1	1	1	0	2	2	0	0	2	1	1	9	11	1
ITA	0	3	0	0	0	0	5	5	3	0	1	3	0	0	0	8	0	2	10	0	32	0	1	3	0	0	2	7	1	0	0	0	8	0	13	1	0	3	1	1	2	1	30	1
JPN	2	7	0	0	0	1	0	2	0	0	0	0	0	0	1	1	0	0	0	0	0	13	0	0	1	0	0	7	0	0	0	0	2	0	0	0	0	0	0	0	0	0	21	0
KAZ	0	0	3	0	0	0	3	6	2	0	0	1	1	0	0	5	0	0	2	0	1	0	12	0	3	0	1	0	0	0	0	0	5	0	0	0	1	0	0	0	0	0	8	0
KOR	4	11	0	0	0	0	2	7	10	0	1	14	7	5	2	3	0	3	3	0	3	0	0	52	14	2	2	15	0	1	0	3	13	0	4	1	1	0	1	6	0	0	39	0
LTU	5	2	0	0	0	0	8	4	19	3	3	19	5	1	3	18	1	4	8	0	0	1	3	14	68	0	3	14	2	0	0	0	30	1	10	0	1	2	0	1	0	0	54	1
LVA	9	0	0	0	0	0	0	0	0	0	6	4	0	1	0	2	3	6	1	0	0	0	0	2	0	20	0	10	5	0	0	1	1	1	8	0	0	0	0	0	0	7	10	0
MEX	2	11	0	0	0	1	11	1	0	7	2	1	0	0	4	0	1	2	1	2	0	1	2	3	0	36	4	6	5	0	0	9	0	14	0	0	1	1	1	0	4	37	0
MYS	28	116	0	5	4	5	18	68	17	6	0	14	9	4	1	4	14	6	20	1	7	7	0	15	14	10	4	228	0	20	1	4	30	0	13	7	1	3	1	12	5	5	122	6
NGA	1	3	2	0	1	0	7	9	8	2	32	11	0	1	0	19	2	0	9	2	1	0	0	0	2	5	6	0	44	0	7	0	1	0	2	2	0	1	3	2	1	20	57	0
NLD	0	40	0	0	1	0	0	33	3	0	0	0	0	0	0	1	0	0	5	0	0	0	0	1	0	0	5	20	0	27	0	0	0	0	0	1	0	0	1	0	0	0	9	0
NOR	2	3	0	0	0	0	0	2	0	1	8	3	0	1	0	7	0	1	5	1	0	0	0	0	0	0	0	1	7	0	13	0	0	0	1	1	1	0	0	0	0	4	15	0
OMN	1	6	0	2	0	0	1	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	3	0	1	0	4	0	0	0	12	1	1	0	0	0	0	2	0	2	9	1
PAK	4	35	0	6	3	8	32	8	22	2	3	22	16	5	7	10	13	27	26	1	8	2	5	13	30	1	9	30	1	0	0	1	188	2	65	5	5	3	1	11	5	6	213	4
PER	6	0	0	0	0	0	1	0	0	4	0	2	0	0	1	1	0	1	2	0	0	0	0	0	1	1	0	0	0	0	0	1	2	11	1	1	0	0	0	0	0	5	7	0
POL	13	25	0	7	0	0	10	5	4	3	3	3	4	2	3	12	4	6	21	2	13	0	0	4	10	8	14	13	2	0	1	0	65	1	169	9	3	0	0	7	2	3	64	1
ROU	2	7	0	2	0	1	4	4	1	0	2	2	1	2	4	8	0	1	8	2	1	0	0	1	0	0	0	7	2	1	1	0	5	1	9	31	0	0	0	2	0	2	28	1
RUS	1	6	1	0	0	1	2	3	2	0	0	1	1	0	0	2	0	1	1	0	0	0	1	1	1	0	0	1	0	0	1	0	5	0	3	0	14	0	0	1	0	1	16	0
SVK	2	0	0	0	0	0	1	0	1	0	1	1	0	1	0	0	0	4	0	0	3	0	0	0	2	0	1	3	1	0	0	0	3	0	0	0	0	7	1	0	0	4	4	0
THA	0	1	1	0	1	0	0	9	0	0	0	0	0	0	0	4	0	1	0	2	1	0	0	1	0	0	1	1	3	1	0	0	1	0	0	0	0	1	9	0	0	1	8	0
TUR	6	26	1	3	2	1	5	10	8	1	1	1	6	1	2	1	4	0	2	1	1	0	0	6	1	0	1	12	2	0	0	2	11	0	7	2	1	0	0	52	1	1	39	0
TWN	1	0	0	0	0	0	1	0	10	0	0	1	0	0	1	0	1	7	2	1	1	2	0	0	0	0	0	5	1	0	0	0	5	0	2	0	0	0	0	1	15	1	16	1
UKR	5	3	0	0	0	1	6	12	3	3	23	10	2	3	3	12	5	1	6	9	1	0	0	0	0	7	4	5	20	0	4	2	6	5	3	2	1	0	1	1	1	52	55	1
USA	65	196	5	37	28	22	73	81	63	4	69	44	46	22	17	69	16	78	99	11	30	21	8	39	54	10	37	122	57	9	15	9	213	7	64	28	16	4	8	39	16	55	1101	6
VNM	1	4	0	0	0	0	2	2	1	1	0	2	1	1	1	4	1	0	4	1	1	0	0	0	1	0	0	6	0	0	0	1	4	0	1	1	0	0	0	0	1	1	6	13

3.3.2 Variable description

Dependent variable - perceived differences and perceived difficulties between individuals and teams. Psychic distance scores in the present study are based on individual perceptions of hundreds of participants from a very varied set of countries of origin (i.e., not limited to developed countries). Psychic distance scores were evaluated once the participants had been assigned to their teams, but before they actually started working together (ex-ante psychic distance). This ensures that reported psychic distance scores result from each participant's general perception of nationalities present in their team, and not from their interaction with specific persons. In addition, participants were asked to assess separately perceived differences towards, and perceived difficulties of working with, their respective teams which were composed of different nationalities. Using two different measures of psychic distance allows a test of the relationship between perceived differences and perceived difficulties. The scores are based on two different questions:

1. *Based on your experience and knowledge about cultures around the world, how different or similar would you say are the cultures of these countries?* [psychic distance as perceived differences, hereafter PDR];

2. *Based on your experience, how difficult or easy would it be to work together for people from these cultures?* [psychic distance as perceived difficulties, hereafter PDC]

In both questions, "these countries" and "these cultures" refer to the countries of origin of their teammates. Each participant rated how different they perceived their teammates and how difficult they thought it would be to work with them on a five-point scale (1 meaning very similar or easy and 5 very different or difficult). The questions were asked in such a way that each participant would give a score to the overall perceived differences (PDR) and difficulties (PDC) within their team. This means that each participant rated perceived differences and difficulties simultaneously (psychic distance towards all the countries present in the team at once) rather than sequentially (psychic

distance towards each country present in the team rated one by one).

Independent variables (1) - personal characteristics. I include the following individual level variables: age, gender, cultural intelligence and international experience.

Age - The age of the participants ranged from 17 to 57 (23.00 on average). Given the arguments developed in the previous section, it is difficult to a priori predict the impact of age on the perception of differences and difficulties.

Gender - Just like age, the gender of the participants may have an impact on the level of differences and difficulties they perceive and report, and it may influence how they are perceived by their teammates and how they perceive them. In my study, 52.07% of the participants were female. The measure for gender was binary (male or female), and takes a value of 1 if the respondent is male.

Cultural intelligence - Measures of cultural intelligence (hereafter CQ) were collected before the study started. The questions participants had to answer were inspired by Ang et al. (2007) and cover five dimensions: interact, socialize, stress, work, and adapt. Each dimension was covered by a statement (*"I enjoy interacting with people from different cultures"* for the "interact" dimension; *"I am confident that I can socialize with locals in a culture that is unfamiliar to me"* for the "socialize" dimension; *"I am sure I can deal with the stresses of working with people from other cultures"* for the "stress" dimension; *"I enjoy working with people from cultures that are unfamiliar to me"* for the "work" dimension; and *"I am confident that I can get accustomed to the working conditions in a different culture"* for the "adapt" dimension) to which the participant assess their level of agreement on a five-point scale (1 meaning strongly disagree and 5 meaning strongly agree). Following Magnusson et al. (2014), an average of these items is used in the analyses to evaluate their overall cultural intelligence.

International experience - Participants were asked how long they had

spent abroad (1) to study, (2) to work, (3) for sightseeing purposes, and (4) for how long they had had interactions with foreigners and/or been involved in international activities in their home country. The seven increments to assess each of them ran from "none" to "4 or more years." An average of these items is used in the analyses to evaluate their overall international experience. The resulting score measures general international experience and is not country-specific.

Independent variables (2) - country dummies. Thanks to the large number of participants and since I knew each team's composition (i.e., which countries are present on each team) as well as the overall psychic distance (both as perceived differences and perceived difficulties) each participant reported, I could transform these data into dyadic psychic distance scores. For instance, if a participant was paired with someone from Argentina, Canada and Japan, ARG, CAN and JPN are marked as 1, whereas all the other country codes (ARE, BRA, NLD, etc.) are marked as 0. Knowing the perceived differences and difficulties each participant reported, I then regressed these scores on these country dummies and individual- and team-level characteristics. I first took subsamples per respondent-country. For example, Dutch participants have been paired with Brazilians on 40 instances, with Colombians on 33 instances, etc. Thanks to the co-occurrence table (see Table 3.2), I know which countries have been paired together and how often. I inferred dyadic, country-level psychic distance scores from individuals' perceptions of the countries represented on their team. To do so, I divided my database into subsamples depending on the country of origin of the participants. For instance, I had one subsample containing only American participants, another one only the Turkish participants, etc. Then, I regressed perceived differences and perceived difficulties on country dummies describing each individual's team composition. To be included in each regression, country dummies had to appear at least 15 times in the sample after listwise deletion, and each pair of countries had to be observed at least 10 times. For instance, Polish participants have been paired 65 times with Pakistani participants, but only 4 times with German participants, so in the Polish subsample, the

country dummy PAK (Pakistan) was included in the regressions, but not the country dummy DEU (Germany). As mentioned earlier, in the regressions to calculate dyadic psychic distance scores, only countries which have been paired together at least 10 times are taken into account to ensure the scores' accuracy. The regression coefficient associated with each country dummy represents thus the influence (positive or negative, significant or not) on the differences and difficulties perceived by the members of a (home) country of having one member from a (host) country. They can therefore be interpreted as directional psychic distance scores from a home country (perceiving) to a host country (perceived).

The regression analyses were based on OLS and ordered probit. The correlation between the coefficients obtained through these two methods ranged between 0.98 to 0.99. Given that they were almost equivalent, I decided that further analyses would be done on the scores provided by OLS. The descriptive statistics are shown in Table 3.3. The correlation table shows for the full sample of 2,808 observations the mean, standard deviations, and correlations between the key variables: the dependent variables (PDR and PDC), team properties (age diversity, gender diversity, country diversity), and individual characteristics of the respondents (age, gender, cultural intelligence, international experience).

Table 3.3. Univariate and bivariate statistics.

	Univariate							Bivariate							
variable	Min	Med	Mean	Max	Std.dev	Skew	Kurt	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) PDR	-4.017	-0.537	0.000	1.783	1.0	-0.069	-0.007								
(2) PDC	-3.201	0.223	0.000	2.505	1.0	0.024	0.415	0.35***							
(3) CULTURAL_INTEL	-3.432	0.183	0.000	1.192	1.0	-1.577	2.833	0.02	-0.09***						
(4) INTERNATIONAL_EXPE	-1.252	-0.119	0.000	1.581	1.0	0.231	-1.325	0.00	-0.04*	0.07***					
(5) AGE	-1.481	-0.247	0.000	8.396	1.0	3.106	13.554	-0.03	-0.03	-0.01	-0.07***				
(6) GENDER_MALE	0.000	0.000	0.479	1.000	0.5	0.083	-1.994	-0.05**	-0.03	-0.01	-0.03	0.10***			
(7) AGE_DIVERSITY	-1.463	-0.282	0.000	3.886	1.0	1.425	1.860	-0.01	-0.03	-0.07***	-0.18***	0.41***	0.01		
(8) GENDER_DIVERSITY	-3.319	0.270	0.000	1.167	1.0	-1.966	3.879	0.00	0.01	0.03	0.01	0.01	-0.01	0.03	
(9) COUNTRY_DIVERSITY	-3.531	0.148	0.000	1.988	1.0	-0.363	0.302	0.08***	0.03	0.08***	-0.21***	0.12***	-0.02	0.13***	-0.04*

Control variables - team diversity. Team diversity variables were derived individual characteristics of team members (age, gender, nationality). Controlling for a variety of sources of diversity in the computation of dyadic (between countries) psychic distance scores is necessary to ensure that the coefficients associated with country dummies capture only perceived differences and difficulties associated with varying countries of origin of the participants, and not some other team-level characteristic.

In the daily practice of international business, people one works and interacts with globally differ greatly in terms of countries of origin, age, gender, levels of education, work habits, etc. Working with them in an integrated team rarely goes smoothly (Kirchmeyer and Cohen, 1992; Lazear, 1999; Maznevski and Chudoba, 2000; Stahl et al., 2010; von Glinow et al., 2004). It follows that different characteristics of the team (for instance, age and gender diversity, number of countries present on the team) may have an impact on the amount of differences and difficulties one perceives. For instance, participants in relatively homogeneous teams would likely, ceteris paribus, perceive fewer differences and difficulties than participants in highly heterogeneous teams (Billig and Tajfel, 1973; Jiang et al., 2011; Stahl et al., 2010; Tajfel, 1970, 1981). This why, besides country- and individual-level differences, team-level diversity can be a driver of psychic distance.

Team members vary in both age and gender, which can account for some of the differences (and difficulties) they perceive. Similar to Magnusson et al. (2014), I include a measure of age diversity (the standard deviation of each team member's age) and of gender diversity (variance of each team member's gender; it ranges from 0 - perfectly homogeneous team, which means a team composed only of men or only of women - to 1 - perfectly heterogeneous team, which means an equal number of men and of women on the team). Data to calculate these measures were available in the participants' profile. I also added a variable to capture country variety, proxied by the number of different countries of origin within each team. For example, a team in which all of the participants are about 25 years old, all males and from a limited number of countries is considered very homogeneous and each participant may perceive

fewer differences and difficulties than in more diverse teams.

3.3.3 Analyses

I proceed in several steps. First, I show the regression results for psychic distance (PDR and PDC) and team (country diversity, gender diversity, age diversity) and individual level variables (cultural intelligence, international experience, age, gender) only (i.e., the country dyads – which countries were paired together – are not taken into account here).

$$\begin{aligned} \text{PDR/C} = \beta_0 &+ \beta_1 \text{CULTURAL\_INTEL} + \beta_2 \text{INTERNATIONAL\_EXP} \\ &+ \beta_3 \text{AGE} + \beta_4 \text{GENDER\_MALE} \\ &+ \sum_{i=1}^{N_c try} \beta_i \text{COUNTRY\_DUMMY}_i + \epsilon \end{aligned} \tag{3.1}$$

$$\begin{aligned} \text{PDR/C} = \beta_0 &+ \beta_1 \text{AGE\_DIVERSITY} + \beta_2 \text{GENDER\_DIVERSITY} \\ &+ \beta_3 \text{COUNTRY\_DIVERSITY} \\ &+ \sum_{i=1}^{N_c try} \beta_i \text{COUNTRY\_DUMMY}_i + \epsilon \end{aligned} \tag{3.2}$$

$$\begin{aligned} \text{PDR/C} = \beta_0 &+ \beta_1 \text{CULTURAL\_INTEL} + \beta_2 \text{INTERNATIONAL\_EXP} \\ &+ \beta_3 \text{AGE} + \beta_4 \text{GENDER\_MALE} \\ &+ \beta_5 \text{AGE\_DIVERSITY} + \beta_6 \text{GENDER\_DIVERSITY} \\ &+ \beta_7 \text{COUNTRY\_DIVERSITY} \\ &+ \sum_{i=1}^{N_{ctry}} \beta_i \text{COUNTRY\_DUMMY}_i + \epsilon \end{aligned} \tag{3.3}$$

$$\text{PDR/C} = \beta_0 + \sum_{i=1}^{N_c try} \beta_i \text{COUNTRY\_DUMMY}_i + \epsilon \tag{3.4}$$

Regressions on the full sample. First only the individual characteristics of the respondents are regressed onto each of the psychic distance construct (Models 1 and 4 in Table 3.4), then only the team properties are taken into account (Models 2 and 5 in Table 3.4), and finally both sets of independent variables (individual characteristics of the respondents and team properties) are regressed onto both PDR (Model 3) and PDC (Model 6). Among the individual characteristics of the respondents, gender (beta = -0.096, p = 0.012, standard error = 0.038 in Model 1 and beta = -0.09, p = 0.017, standard error = 0.038 in Model 3) has a significant and negative impact on psychic distance as perceived differences; cultural intelligence (beta = -0.084, p = 0.0000075, standard error = 0.019 in Model 4, and beta = -0.091, p = 0.0000017, standard error = 0.019 in Model 6) and international experience (beta = -0.041, p = 0.031, standard error = 0.019 in Model 4 and beta = -0.04, p = 0.041, standard error = 0.02 in Model 6) have a significant and negative impact on psychic distance as perceived difficulties (PDC). Among the team characteristics, age diversity has a negative impact on psychic distance as perceived difficulties (beta = -0.038, p = 0.044, standard error = 0.019 in Model 5, and beta = -0.044, p = 0.036, standard error = 0.021 in model 6). Country diversity consistently has a significant and positive on both PDR and PDC (beta = 0.08, p = 0.000026, standard error = 0.019 in Model 2, beta = 0.083, p = 0.000023, standard error = 0.02 in Model 3, beta = 0.034, p = 0.073, standard error = 0.019 in Model 5, and beta = 0.036, p = 0.064, standard error = 0.019 in Model 6).

For psychic distance as perceived differences (PDR), the gender of the respondent is a significant predictor. Male participants perceive fewer differences associated with working in a culturally-diverse global virtual team, which is not in line with studies suggesting that women exhibit higher trust towards out-group members than men (Bohnet and Zeckhauser, 2004; Maddux and Brewer, 2005; Muethel and Bond, 2013). Culturally intelligent participants perceived fewer difficulties, suggesting that they are

more confident than their less culturally intelligent counterparts manage added difficulties inherent to working in a culturally diverse team. It does not necessarily mean that they take diversity lightly, but it suggests that they are confident in their ability to deal with it and/or value variety as a source of learning, innovation and overall enrichment. In the same vein, the more internationally experienced the participants reported to be, the lower the level of difficulties they perceived. Just as for cultural intelligence having a negative impact on perceived difficulties, it may well be that participants boasting more international experience are not fearful of the idea of working in such a heterogeneous team but rather see it as an opportunity.

Country diversity (i.e., the number of countries present on the team) has a significant and positive impact on PDR and PDC. Age diversity has a significant and negative impact on PDC, suggesting that participants considered working in teams associated with a relatively larger age diversity as decreasing difficulties.

Considering that the two questions were asked together, the relatively low correlation between the two resulting measures of psychic distance ($r = 0.35$, $p<0.01$) suggests that participants did not necessarily perceive differences as sources of difficulties, and that perceived differences and perceived difficulties are two distinct constructs possibly driven by different macro-level antecedents (which will be investigated in Chapter 4). Differences were not necessarily seen as difficulties by the participants. The results are shown in Table 3.4.

Computation of dyadic psychic distance coefficients. I continue to explore the country level effect by adding country dummies. As explained earlier, I do this for each home country separately. For example, I run the model for the USA as a home country (i.e., each respondent is from the USA) and use individual and team characteristics listed in Table 3.4, and add country dummies for the countries of origin of the other students on the team. For the sake of brevity, only analyses on the USA subsample are reproduced here. Table 3.5 shows the results of the regressions for the USA subsample (N =

629).

Table 3.4. Impact of individual and team characteristics on PDR and PDC.

	Dependent variable:					
	PDR			PDC		
	(1)	(2)	(3)	(4)	(5)	(6)
CULTURAL_INTEL	0.020		0.011	−0.084***		−0.091***
	(0.019)		(0.019)	(0.019)		(0.019)
INTERNATIONAL_EXPE	−0.003		0.014	−0.041**		−0.040**
	(0.019)		(0.020)	(0.019)		(0.020)
AGE	−0.025		−0.032	−0.033*		−0.019
	(0.019)		(0.021)	(0.019)		(0.021)
GENDER_MALE	−0.096**		−0.090**	−0.056		−0.057
	(0.038)		(0.038)	(0.038)		(0.038)
AGE_DIVERSITY		−0.020	−0.004		−0.038**	−0.044**
		(0.019)	(0.021)		(0.019)	(0.021)
GENDER_DIVERSITY		0.005	0.004		0.016	0.019
		(0.019)	(0.019)		(0.019)	(0.019)
COUNTRY_DIVERSITY		0.080***	0.083***		0.034*	0.036*
		(0.019)	(0.020)		(0.019)	(0.019)
Constant	0.046*	0.000	0.043*	0.027	0.000	0.027
	(0.026)	(0.019)	(0.026)	(0.026)	(0.019)	(0.026)
Observations	2,808	2,808	2,808	2,808	2,808	2,808
R^2	0.004	0.006	0.010	0.011	0.002	0.014
Adjusted R^2	0.002	0.005	0.007	0.010	0.001	0.011
Residual Std. Error	0.999 (df = 2803)	0.997 (df = 2804)	0.996 (df = 2800)	0.995 (df = 2803)	0.999 (df = 2804)	0.994 (df = 2800)
F Statistic	2.506** (df = 4; 2803)	6.008*** (df = 3; 2804)	4.016*** (df = 7; 2800)	7.752*** (df = 4; 2803)	2.316* (df = 3; 2804)	5.589*** (df = 7; 2800)
Note:						*p<0.1; **p<0.05; ***p<0.01

Table 3.5. Impact of individual and team characteristics on PDR and PDC - USA sample

Variables	Perceived Differences				Perceived Difficulties			
Variable	PDR_IND	PDR_TEAM	PDR_ALL	PDR_NONE	PDC_IND	PDC_TEAM	PDC_ALL	PDC_NONE
CULTURAL_INTEL	0.010		-0.004		-0.172***		-0.185***	
INTERNATIONAL_EXPE	0.030		0.040		-0.039		-0.036	
AGE	-0.060		-0.056		-0.068*		-0.040	
GENDER_MALE	-0.120		-0.116		-0.112		-0.112	
AGE_DIVERSITY		-0.045	-0.016			-0.113**	-0.099*	
GENDER_DIVERSITY		0.046	0.045			0.030	0.024	
COUNTRY_DIVERSITY		0.094	0.103			0.036	0.081	
ARE	0.001	-0.018	-0.029	0.021	-0.043	-0.108	-0.100	-0.049
BRA	0.104	0.093	0.078	0.123	0.329**	0.249*	0.284**	0.297**
BWA	0.269	0.312	0.306	0.283	0.200	0.163	0.214	0.176
CHE	-0.079	-0.114	-0.105	-0.101	-0.296	-0.324	-0.312	-0.324
CHL	0.115	0.025	0.076	0.074	0.250	0.196	0.199	0.229
CHN	-0.026	-0.065	-0.055	-0.026	-0.033	-0.102	-0.099	-0.049
COL	-0.222*	-0.251*	-0.257*	-0.224*	-0.212*	-0.205	-0.231*	-0.210
DEU	-0.127	-0.142	-0.160	-0.105	-0.279*	-0.328**	-0.313**	-0.303**
ECU	0.131	0.040	0.070	0.078	0.349	0.412*	0.323	0.383*
ESP	-0.171	-0.208	-0.187	-0.196	-0.537***	-0.568***	-0.557***	-0.563***
EST	0.050	-0.047	0.003	0.004	0.190	0.200	0.128	0.241
FRA	-0.146	-0.188	-0.178	-0.148	-0.409*	-0.446**	-0.459**	-0.399*

Table 3.5. *(continued)*

Variable	PDR_IND	PDR_TEAM	PDR_ALL	PDR_NONE	PDC_IND	PDC_TEAM	PDC_ALL	PDC_NONE
GBR	-0.268	-0.279	-0.296	-0.254	-0.426*	-0.424	-0.443*	-0.422
GHA	-0.196	-0.210	-0.208	-0.211	-0.111	-0.078	-0.075	-0.124
HUN	-0.274	-0.254	-0.272	-0.254	-0.637**	-0.706***	-0.633**	-0.700**
IDN	0.016	-0.044	-0.060	0.035	-0.083	-0.115	-0.163	-0.059
IND	0.210*	0.171	0.192	0.191	0.101	0.058	0.082	0.066
IRL	0.027	0.039	-0.005	0.078	0.259	0.158	0.215	0.213
ITA	0.125	0.089	0.071	0.133	-0.229	-0.318	-0.273	-0.302
JPN	0.503**	0.494**	0.499**	0.499**	-0.229	-0.294	-0.251	-0.271
KOR	0.023	-0.064	-0.014	-0.032	-0.002	0.038	-0.049	0.051
LTU	0.047	0.018	0.015	0.050	-0.275	-0.287	-0.299*	-0.276
LVA	0.351	0.303	0.337	0.328	0.243	0.148	0.221	0.176
MEX	0.418*	0.399*	0.400*	0.419*	0.004	-0.056	-0.029	-0.031
MYS	-0.001	-0.042	-0.048	0.008	-0.065	-0.115	-0.128	-0.065
NGA	0.529**	0.416*	0.441*	0.479**	0.567**	0.522**	0.532**	0.477**
NOR	0.126	-0.003	0.047	0.072	-0.042	-0.202	-0.129	-0.174
PAK	0.239**	0.184*	0.198*	0.226**	0.129	0.052	0.082	0.078
POL	-0.297	-0.306*	-0.335*	-0.271	-0.088	-0.105	-0.129	-0.067
ROU	-0.361*	-0.381*	-0.378*	-0.365*	-0.452**	-0.491**	-0.501**	-0.456**
RUS	-0.344	-0.359	-0.376	-0.336	-0.191	-0.158	-0.220	-0.140
TUR	-0.313*	-0.348*	-0.346*	-0.316*	-0.411**	-0.458**	-0.432**	-0.441**
TWN	0.076	-0.013	0.022	0.029	0.316	0.234	0.269	0.257

Table 3.5. *(continued)*

Variable	PDR_IND	PDR_TEAM	PDR_ALL	PDR_NONE	PDC_IND	PDC_TEAM	PDC_ALL	PDC_NONE
UKR	-0.110	-0.170	-0.172	-0.101	-0.338*	-0.419**	-0.395**	-0.370*
USA	-0.444***	-0.396***	-0.368***	-0.466***	-0.305***	-0.304***	-0.240**	-0.342***
(Intercept)	0.235	0.296	0.318	0.212	0.510**	0.570**	0.603***	0.520**

3.4 Results

First, I regress the country dyads (i.e., dummies representing the presence or absence of nationals from those countries on the team; here only countries which have been paired more than 10 times with the USA are included) while controlling for individual characteristics of the respondents (cultural intelligence, international experience, age, gender) onto psychic distance as perceived differences (model PDR_IND) and psychic distance as perceived difficulties (model PDC_IND). Second, I regress the same country dyads while this time controlling for team properties (country diversity, gender diversity, age diversity) onto PDR (model PDR_TEAM) and PDC (model PDC_TEAM). Third, I regress the same country dyads while controlling for both individual characteristics of the respondents and team properties onto PDR (model PDR_ALL) and PDC (model PDC_ALL). Finally, to illustrate the impact of the controls used in the previous models, I run the regressions using only the country dyads for PDR (model PDR_NONE) and PDC (model PDC_NONE). Each coefficient associated with a country dummy variable represents an influence towards overall perceived differences and difficulties. The higher the coefficient, the more differences (difficulties) are perceived on average at the aggregated level by the home country (here in Table 3.5, the USA) towards the host country (all of the country dummies listed in Table 3.5).

These coefficients can be interpreted as dyadic psychic distance scores. I will use them in Chapters 4 and 5. For instance, in the American sub-sample (i.e., all of the participants whose country of origin is the United States), the coefficients associated with the dummy MEX (Mexico) are significant and positive for psychic distance as perceived differences[2], but never significant for psychic distance for psychic distance as perceived difficulties. This means that

[2]beta = 0.40, p = 0.069, standard error = 0.22 when country dummies, individual characteristics of the respondent and team characteristics are included in the regressions (PDR_ALL), beta = 0.42, p = 0.057, standard error = 0.22 when country dummies and individual characteristics of the respondent are included in the regression (PDR_IND), beta = 0.40, p = 0.069, standard error = 0.22 when country dummies and team characteristics are included in the regression (PDR_TEAM), and beta = 0.42, p = 0.055, standard error = 0.22 when only country dummies are included in the regression (PDR_NONE).

the psychic distance score USA-MEX (from the American participants towards the Mexican participants) in subsequent analyses is 0.40. This indicates that American participants perceive more differences (but not more difficulties) when Mexican participants are on the same team. Still in the American sub-sample, the coefficient associated with Nigeria (NGA) is 0.44 for psychic distance as perceived differences (PDR) when country dummies, individual characteristics of the respondent and team characteristics are included in the regressions (PDR_ALL). This means that the psychic distance score USA-NGA (from the American participants towards the Nigerian participants) in subsequent analyses is 0.44. This indicates that American participants perceive more differences and more difficulties when Nigerian participants are on the same team. The results indicate that many country dyads do not impact significantly the psychic distance score (neither PDR nor PDC). Unlike for the full sample (Table 3.4), gender is not a significant predictor of PDR. However, cultural intelligence and age diversity also have a significant and negative impact on psychic distance as perceived difficulties.

In this thesis, I am interested in two different facets of psychic distance: perceived differences (PDR) and perceived difficulties (PDC). The first research question was about the relationship between these two facets. The correlation matrix (Table 3.6 reveals that they are indeed positively correlated (0.35). Further analyses (corresponding to the remaining research questions) suggest that they have different micro-level antecedents (they also have different macro-level antecedents: see Chapter 4).

I empirically demonstrate that a non-negligible part of psychic distance stems from individual- and team-level variables. First, a quick look at the correlation table of the different dyadic psychic distance scores (Table 3.6 in the appendix) shows that the correlation between dyadic psychic distance scores calculated using country dummies only and controlled for individual characteristics of the respondents, team properties or both is not perfect (equal to 1), so these sets of control do make a difference. Personal characteristics of the respondents seem to be crucial in coping/handling the perceived difficulties associated with diversity. On the overall sample (see Table 3.4, cultural

intelligence and international experience were significant and of the expected negative sign for psychic distance as perceived difficulties while gender was a significant predictor of psychic distance as perceived differences.

My results indicate that not all country dyads contribute to the formation of psychic distance. Most of the coefficients associated with the country dyads were not significant (see Tables 3.7 and 3.8 in the appendix). Some countries have a stronger association with the psychic distance score than others, and some contribute positively to this score and others negatively. For the participants whose country of origin was the United States, being in a team with participants from Japan (JPN), Nigeria (NGA) or Pakistan (PAK) resulted in perceiving larger differences and being paired with participants from Nigeria (NGA) or Brazil (BRA) meant perceiving more difficulties. Conversely, being paired with participants from for instance Germany (DEU), Spain (ESP), France (FRA), Hungary (HUN), or Romania (ROU) led the American participants to perceive fewer difficulties. Consistent with expectations, having a fellow American on the team decreases both PDR and PDC. It is important to highlight that not all country dyads matter to the same extent or in the same way in the formation of psychic distance. For example, for the American participants (see Table 3.5), having to work with team members from Japan, Nigeria or Pakistan resulted in perceiving larger differences and being paired with Nigerians or Brazilians led to increased perceived difficulties, while being in a team with participants from Germany, Hungary, or France led to perceiving fewer difficulties.

3.5 Discussion and Conclusion

The objective of this chapter was twofold: (1) calculate the dyadic psychic distance scores (PDR and PDC) to be used in Chapters 4 and 5; and (2) explore respondent-specific antecedents of psychic distance (gender, age, cultural intelligence, and international experience).

3.5.1 Contributions

I believe this study contributes to the international business literature in two different ways. First, I show that psychic distance is related to variables stemming not exclusively from the country level. Second, there is evidence that psychic distance is not a unidimensional concept. Here two facets are considered (perceived differences and perceived difficulties), but it does not mean that others are not at play. Besides, by considering two different facets of psychic distance, the results presented in this chapter are consistent with a more positive appreciation of the differences that perceiving differences does not necessarily mean considering them as difficulties. Differences are generally assumed to cause a wide array of problem in the international business literature (higher information and coordination costs, lower performance and chances of survival, etc.) but current research trends (Stahl and Tung, 2014, 2015) suggest that they are not only to be associated with difficulties, but can rather be seen more positively as a potential source of innovation, creativity and learning opportunities.

3.5.2 Limitations

This study is not without its limitations. I have made assumptions regarding method and sample. First, the dependent variable was measured by asking participants the following two questions: 1) *Based on your experience and knowledge about cultures around the world, how different or similar would you say are the cultures of these countries?* [psychic distance as perceived differences, PDR]; and 2) *Based on your experience, how difficult or easy would it be to work together for people from these cultures?* [psychic distance as perceived difficulties, PDC] to which they provided their answers on a five-point scale, ranging from very similar/easy (1) to very different/difficult (5). The fact that the psychic distance scores towards one's own country of origin is set at 0 is questionable. It assumes one perceives no differences or difficulties when working with someone from the same country of origin. This assumption of spatial homogeneity is similar to the one Shenkar (2001) describes for cultural distance. It negates the fact that two individuals from the same country may

perceive differences and difficulties while interacting with one another (e.g. if one lives in a big city and the other in the countryside), sometimes more so than with nationals from other countries (e.g. people living in global cities feel more alike than with other parts of their countries) (Goerzen et al., 2013; Nachum and Wymbs, 2005; Sassen, 2001).

Second, psychic distance scores are distilled from overall differences and difficulties perceived by each participant towards their fellow team members. Each dyad contributes to the overall differences and difficulties that people perceive. When calculating the psychic distance scores, I considered that each dyad had an equal weight in the overall differences and difficulties perceived by each team member. It may be that some dyads have a higher influence on the overall psychic distance score than others due to negative and positive stereotyping (Carr et al., 2001; Mamman, 1995). This could be the case in teams in which all of the dyads except one are countries within the same cultural cluster (Ronen and Shenkar, 2013). For instance, if one team only consists of participants from the European Union, except one coming from Japan, this participant compromises an otherwise culturally homogeneous group. By coming from a different cultural cluster, he represents a source of added cultural heterogeneity, and thus his mere presence increases the other members' perceived differences and difficulties more so than if he were from another European Union country. Therefore, the dyads associated with him may carry more weight than the other ones linking the European participants together. Resorting to averages means that I assume that each dyad matters equally in the overall psychic distance scores. An average score of the dyads hides the fact that, within each team and for each participant and for any given home country, some dyads may affect the overall psychic distance score positively (e.g., for countries whose nationals have the reputation of being reliable), others may affect it negatively (e.g., if a participant has had a negative experience in one of the target countries), and others may have absolutely no effect (should a participant be totally indifferent towards some target countries, may it be because they are very small and/or unheard of for them). Averaging the scores may blur these nuances.

Third, a critical aspect of the context of this study is that its participants are mostly students. While a student sample is considered acceptable in psychology research (Bello et al., 2009), it may not be ideal in management studies since the conclusions stemming from such investigation are not applicable to real-life corporate situations, students being too different from current decision-makers in terms of experience, and also due to the inability to perfectly replicate how decisions are made in the corporate environment. However it should be noted that much effort went into designing conditions as close as possible to a corporate environment (similar task, not giving a choice who ones works with) and the students undergoing this project can be considered as "the managers of tomorrow" (Magnusson et al., 2014), p.302). Access to many cohorts of highly diverse corporate teams who would be willing to answer survey questions every week for two months would have simply been impossible.

Finally, another limitation of my dataset is the overrepresentation of certain countries of origin (e.g., more than one-fifth of the participants come from the United States) to the detriment of others (112 countries are represented fewer than 15 times in my sample). Fortunately, given the large number of participants, a varied set of countries of origin was still available for my study.

3.5.3 Discussion

To conclude, a common assumption in the international business literature is that country dyads can be used as proxies for psychic distance. Possible explanations for this practice arise from early interpretations of the seminal definition of psychic distance given by Johanson and Vahlne (1977), *"factors preventing or disturbing the flow of information between potential and actual suppliers and customers"* (p.24). The "factors" mentioned there have been considered as stemming from cultural differences, which are commonly considered at the country-level. Based on literature in social psychology and its emphasis on the impact of personal characteristics on perceptions, I believe that this assumption should be tested, and that the traditional

approach (country-level differences satisfactorily proxy psychic distance) could be complemented by variables stemming from other levels of analysis (in this study, team diversity and individual characteristics). Therefore, the aim of this chapter was to advance our understanding of the antecedents of psychic distance by suggesting to look beyond a country dyadic view of psychic distance and start investigating the individual level as well (controlling for team level). My point was not to disregard macro-level differences, but to study to what extent country dyads matter to capture psychic distance.

The results presented in this chapter call for future research in at least two different directions. First, a multi-level approach to the notion of psychic distance. As evidenced here, micro-level variables account for a non-negligible part of the variance of psychic distance (even though it should be noted that r^2 are low) and should thus be taken into account. Cultural intelligence and international experience are consistently significant for psychic distance as perceived difficulties. Gender is significant and negative for psychic distance as perceived differences. For now, these are understudied antecedents of psychic distance. Second, a more fine-grained understanding of the extent to which country dyads mater and which ones is a next step. Knowing specifically which host countries carry a stronger weight (both positively and negatively) for any home country under scrutiny may provide novel insight for firms looking into venturing abroad and/or deepening their business activities in foreign locations, for both location choice decisions and evaluating chances of success further down the road.

Appendix

Table 3.6. Correlation matrix for computed dyadic psychic distance scores: two different facets of psychic distance (PDR and PDC) with four varying levels of control.

	Univariate							Bivariate				
variable	Min	Med	Mean	Max	Std.dev	Skew	Kurt	(1)	(2)	(3)	(4)	(5)
(1) PDR_ALL	-1.352	0.001	0.012	1.098	0.357	-0.056	1.012					
(2) PDR_IND	-1.065	-0.007	-0.002	1.014	0.331	-0.080	0.663	0.93***				
(3) PDR_NONE	-0.846	-0.011	0.008	1.408	0.313	0.476	1.821	0.84***	0.89***			
(4) PDC_ALL	-2.231	-0.092	-0.046	1.753	0.396	-0.251	4.426	0.36***	0.33***	0.27***		
(5) PDC_IND	-1.245	-0.076	-0.039	1.378	0.343	0.203	1.119	0.35***	0.36***	0.33***	0.85***	
(6) PDC_NONE	-1.348	-0.084	-0.048	0.835	0.328	-0.005	0.456	0.33***	0.35***	0.38***	0.76***	0.94***

Table 3.7. Proportion of significant coefficients for all the countries of origin available calculated with varying sets of independent variables (country dummies, team characteristics, individual characteristics) for psychic distance as differences (PDR)

Country	IND	TEAM	ALL	NONE
ARE	0 out of 9	0 out of 9	0 out of 9	0 out of 9
BRA	3 out of 17	3 out of 17	3 out of 17	3 out of 17
BRB	0 out of 1	0 out of 1	0 out of 1	0 out of 1
BWA	0 out of 2	0 out of 2	0 out of 2	0 out of 2
CHE	1 out of 2	0 out of 2	0 out of 2	1 out of 2
CHL	0 out of 1	0 out of 1	0 out of 1	0 out of 1
CHN	1 out of 9	0 out of 9	1 out of 9	0 out of 9
COL	0 out of 16	1 out of 16	0 out of 16	1 out of 16
DEU	1 out of 12	1 out of 12	0 out of 12	1 out of 12
DOM	0 out of 1	0 out of 1	0 out of 1	0 out of 1
ECU	2 out of 6	0 out of 6	1 out of 6	0 out of 6
ESP	2 out of 10	3 out of 10	2 out of 10	3 out of 10
EST	1 out of 4	0 out of 4	0 out of 4	1 out of 4
FRA	0 out of 1	0 out of 1	0 out of 1	0 out of 1
GBR	0 out of 2	0 out of 2	0 out of 2	0 out of 2
GHA	0 out of 12	0 out of 12	0 out of 12	0 out of 12
HUN	0 out of 3	1 out of 3	0 out of 3	1 out of 3
IDN	0 out of 6	0 out of 6	0 out of 6	0 out of 6
IND	2 out of 14	1 out of 14	2 out of 14	1 out of 14
IRL	0 out of 2	0 out of 2	0 out of 2	0 out of 2
ITA	0 out of 3	1 out of 3	0 out of 3	0 out of 3
JPN	0 out of 1	0 out of 1	0 out of 1	0 out of 1
KOR	0 out of 7	0 out of 7	0 out of 7	0 out of 7
LTU	0 out of 8	3 out of 8	2 out of 8	3 out of 8
LVA	0 out of 2	0 out of 2	0 out of 2	0 out of 2
MEX	1 out of 4	1 out of 4	0 out of 4	1 out of 4
MYS	1 out of 17	0 out of 17	2 out of 17	1 out of 17
NGA	0 out of 5	0 out of 5	0 out of 5	0 out of 5
NLD	0 out of 3	2 out of 3	1 out of 3	0 out of 3
NOR	0 out of 1	0 out of 1	0 out of 1	0 out of 1

Table 3.7. *(continued)*

Country	IND	TEAM	ALL	NONE
PAK	0 out of 16	1 out of 16	0 out of 16	0 out of 16
POL	2 out of 12	2 out of 12	2 out of 12	2 out of 12
ROU	0 out of 1	0 out of 1	0 out of 1	0 out of 1
RUS	0 out of 1	0 out of 1	0 out of 1	0 out of 1
TUR	0 out of 5	0 out of 5	0 out of 5	0 out of 5
TWN	0 out of 2	0 out of 2	0 out of 2	1 out of 2
UKR	0 out of 6	0 out of 6	0 out of 6	0 out of 6
USA	9 out of 35	9 out of 35	9 out of 35	8 out of 35
WORLD	**26 out of 259**	**29 out of 259**	**25 out of 259**	**28 out of 259**

Table 3.8. Proportion of significant coefficients for all the countries of origin available calculated with varying sets of independent variables (country dummies, team characteristics, individual characteristics) for psychic distance as difficulties (PDC).

Country	IND	TEAM	ALL	NONE
ARE	1 out of 9	1 out of 9	1 out of 9	1 out of 9
BRA	2 out of 17	4 out of 17	1 out of 17	4 out of 17
BRB	0 out of 1	0 out of 1	0 out of 1	0 out of 1
BWA	0 out of 2	0 out of 2	0 out of 2	0 out of 2
CHE	2 out of 2	1 out of 2	1 out of 2	2 out of 2
CHL	0 out of 1	0 out of 1	0 out of 1	0 out of 1
CHN	0 out of 9	5 out of 9	3 out of 9	3 out of 9
COL	3 out of 16	3 out of 16	3 out of 16	3 out of 16
DEU	2 out of 12	1 out of 12	1 out of 12	2 out of 12
DOM	0 out of 1	0 out of 1	0 out of 1	0 out of 1
ECU	1 out of 6	1 out of 6	1 out of 6	1 out of 6
ESP	1 out of 10	2 out of 10	1 out of 10	3 out of 10
EST	1 out of 4	1 out of 4	0 out of 4	1 out of 4
FRA	0 out of 1	0 out of 1	0 out of 1	0 out of 1
GBR	0 out of 2	0 out of 2	0 out of 2	0 out of 2
GHA	0 out of 12	1 out of 12	0 out of 12	1 out of 12
HUN	1 out of 3	1 out of 3	1 out of 3	2 out of 3

Table 3.8. *(continued)*

Country	IND	TEAM	ALL	NONE
IDN	0 out of 6	0 out of 6	1 out of 6	1 out of 6
IND	1 out of 14	0 out of 14	0 out of 14	0 out of 14
IRL	0 out of 2	0 out of 2	0 out of 2	0 out of 2
ITA	0 out of 3	0 out of 3	0 out of 3	0 out of 3
JPN	0 out of 1	0 out of 1	1 out of 1	0 out of 1
KOR	0 out of 7	1 out of 7	0 out of 7	2 out of 7
LTU	2 out of 8	2 out of 8	2 out of 8	2 out of 8
LVA	0 out of 2	0 out of 2	0 out of 2	0 out of 2
MEX	0 out of 4	0 out of 4	0 out of 4	0 out of 4
MYS	1 out of 17	0 out of 17	1 out of 17	0 out of 17
NGA	0 out of 5	0 out of 5	0 out of 5	0 out of 5
NLD	0 out of 3	1 out of 3	1 out of 3	1 out of 3
NOR	0 out of 1	0 out of 1	0 out of 1	0 out of 1
PAK	0 out of 16	1 out of 16	1 out of 16	0 out of 16
POL	4 out of 12	3 out of 12	4 out of 12	4 out of 12
ROU	0 out of 1	0 out of 1	0 out of 1	0 out of 1
RUS	0 out of 1	0 out of 1	0 out of 1	0 out of 1
TUR	0 out of 5	1 out of 5	1 out of 5	1 out of 5
TWN	0 out of 2	0 out of 2	1 out of 2	0 out of 2
UKR	2 out of 6	1 out of 6	2 out of 6	1 out of 6
USA	12 out of 35	11 out of 35	13 out of 35	11 out of 35
WORLD	**36 out of 259**	**42 out of 259**	**41 out of 259**	**46 out of 259**

Chapter 4

Investigating macro-level antecedents of psychic distance

TWO assumptions commonly held in international business literature are challenged in this chapter: I consider that psychic distance is not a unidimensional concept (Stottinger and Schlegelmilch, 1998), and that its antecedents are not restricted to macro-level, objective distances. I test to what extent considering that an individual-level, perceptual distance only has macro-level, non-perceptual differences as antecedents is a valid assumption.

4.1 Introduction

In Chapter 2, I showeed that psychic distance and cultural distance have increasingly become distinct concepts (again), with psychic distance being characterized as individual, perceptual, dynamic, and asymmetrical. Chapter 3 showed that psychic distance has micro-level antecedents, and is only to a limited extent defined by country dyads. Here I investigate the macro-level antecedents of aggregated, dyadic psychic distance and its empirical relation to other distances. In doing so, I highlight the multidimensional nature of psychic distance.

The notion of psychological distance is found in the psychology literature, exemplifying its micro-level starting point: "Psychological [psychic] distance is egocentric: Its reference point is the self in the here and now" (Trope and Liberman, 2010, p.440). In the words of Evans and Mavondo (2002), psychic distance refers to "the mind's processing, in terms of perception, of cultural and business differences that forms the basis of psychic distance." I reckon that psychic distance is at the individual level and based on perceptions (Dow, 2000; Ellis, 2008; Evans and Mavondo, 2002; Goerzen and Makino, 2007; Gray, 1997; Hakanson and Ambos, 2010; Leonidou and Katsikeas, 1996).

In international business, the objective, macro-level distances (cultural, administrative, geographic, economic, linguistic, religious and institutional) are much more investigated than distances which include an individual component (cognitive and psychic). The latter represent only 18.27% of all the papers mentioning distances. How all these different types of distance relate to one another is not clear-cut. Some will consider that psychic distance can be proxied by macro-level distances (Dunning et al., 2007a; Gomes and Ramaswamy, 1999; Kogut and Singh, 1988; Mariotti and Piscitello, 1995; O'Grady and Lane, 1996; Sethi et al., 2003; Simonin, 1999a,b; Yeniyurt et al., 2009), even though the results are less than encouraging. Studies which proxy psychic distance using cultural dimensions find no significant result (Benito and Gripsrud, 1992a; Ellis, 2008; Engwall and Wallenstal, 1988),

while others only test country-to-country differences as antecedents of psychic distance (Dow and Karunaratna, 2006; Hakanson and Ambos, 2010). Only this type of antecedent has been investigated so far while possible drivers stemming from more micro levels have been virtually ignored. Here I test to what extent considering that an individual-level, perceptual distance only has macro-level, objective differences as antecedents is a valid assumption. While in the previous chapter the emphasis was on how dyadic, country-level psychic distance scores are derived from individual perceptions, here the focus is on finding out possible antecedents to these previously calculated psychic distance scores.

As argued in previous chapters, psychic distance is multifaceted, perceptual and asymmetrical in nature. When confronted with the question "What is the distance you perceive towards this country?" one is faced with many and equally valid potential interpretations: to what extent are they similar or different from me? Would I feel comfortable in this country? How do I feel towards its nationals? Possible answers can range from easy to difficult to understand or work with, positive to negative perception, alike to dissimilar, etc. Unlike the other types of distance (e.g., cultural, geographical), a small versus large spectrum does not really make much sense, since perceiving a small (or large) distance towards another country can cover many different facets. In this dissertation I focus on two facets: psychic distance as perceived differences and psychic distance as perceived difficulties[1]. Second, the analyses in this chapter are performed on dyadic psychic distance scores calculated in the previous chapter on the basis of aggregated individual perceptions. The fact that it reflects perceptions is the key defining characteristic of psychic distance; other types of distance are non-perceptual in nature. Consistent with my theoretical discussion in Chapter 3, even though I use aggregated dyadic psychic distance scores since I investigate macro-level antecedents, control variables stemming from different levels (i.e., not exclusively country-to-country differences) are included.

[1]This does not mean however that I consider that only two are possible, merely that two of the potential facets of psychic distance are considered in the scope of this dissertation.

Finally, the dyadic psychic distance scores calculated in Chapter 3 and used as dependent variables in this chapter display asymmetry, similar to the study of Hakanson and Ambos (2010). There is no theoretical reasoning underlying that the aggregated perceptions from country A towards country B should be the same as the aggregated perceptions from country B to country A, since both countries do not necessarily have the same size, level of influence, economic or cultural power.

The main rationale behind this chapter is to strengthen and advance our current knowledge and understanding about the antecedents (or stimuli) of psychic distance. I draw inspiration from and extend Hakanson & Ambos' (2010) study by taking as independent variables a somewhat different set of country-to-country differences. Thus, I test the impact of the different types of distance making up the CAGE framework (Ghemawat, 2001) and the psychic distance stimuli (Ghemawat, 2001) on a variety of psychic distance scores I calculated in Chapter 3 and see how much variance in psychic distance they explain. The unit of analysis is the country pair. I offer new insights on how to consider psychic distance by investigating to what extent it is impacted by macro-level distances (Research Question 4.1), but also whether considering it as a multi-dimensional construct matters (Research Question 4.2).

I find that macro-level distances only explain psychic distance to a very limited extent (never more than 11%), either for PDR or PDC. This suggests that country-to-country differences indeed are somewhat related to psychic distance but most of its variance remains unaccounted for. Contrary to popular assumptions in international business, my results show that geographic distances do not correlate with country-level dyadic psychic distances. Cultural distance is a significant predictor of perceived difficulties, but has no significant incidence on perceived differences.

Second, I consider two critical facets of psychic distance: psychic distance as perceived differences (PDR) and psychic distance as perceived difficulties (PDC). The fact that they have a low correlation (0.35; see Chapter 3) and different antecedents suggests that they cover different dimensions of

psychic distance. PDR is impacted by differences in industrial development, while cultural distance is a significant predictor of PDC. This distinction has at least two implications: perceiving differences does not mean perceiving difficulties, suggesting a more positive appreciation of differences (Stahl and Tung, 2014, 2015); besides, it also suggests that we should strive for a more fine-grained approach to psychic distance, acknowledging that it potentially has several other dimensions (besides perceived differences and perceived differences) depending on the research question at hand.

4.2 Literature review

An elaborate discussion of the concept of psychic distance literature can be found in Chapter 2.

Since the 1970s, distances have been used to investigate a wide array of phenomena, including (but not limited to) the international expansion of firms (Banerji and Sambharya, 1996; Gray, 1997) with issues relating to market selection and entry modes (Arora and Fosfuri, 2000; Davidson, 1980; Eriksson et al., 1997; Kogut and Singh, 1988), exit strategies (Ting, 1988), knowledge and information transfers across borders (Anand and Delios, 1997), expatriates' well-being (Johnson et al., 2006), performance (Luo and Peng, 1999).

As explained in Chapter 2, psychic distance was brought to the IB community by Uppsala scholars in the 1970s (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977), and has increasingly gained in popularity over time (see Figure 2.1 in Chapter 2). The seminal and most widely used definition of psychic distance found in the literature is the one by Johanson and Vahlne (1977): *"factors preventing or disturbing the flow of information between potential and actual suppliers and customers."* (p.24) As stated in Chapter 3, even though individuals are clearly acknowledged in the original definition ("suppliers and customers"), the vast majority of the researchers has limited the aforementioned "factors" to country-to-country differences.

The focus on macro-level distances at the detriment of others can be explained by very pragmatic reasons. Data for cultural (e.g., Hofstede

dimensions), administrative (e.g., World Governance Indicators from the World Bank), geographic (e.g., work from the CEPII), and economic distances (e.g., World Bank) are easily accessible online, freely available, have gained increasing legitimacy over the years given the numbers of researchers who have been using them, and some computations (e.g., Kogut & Singh index) have made them even easier to use in regressions.

Conversely, studying psychic distance proves much more challenging. It requires access to a large pool of decision makers before they make international investment decisions so as to assess their ex ante perceptions rather than their ex post perceptions which would be colored by the particular area and nationals they were in contact with. Such an empirical set-up is much more difficult to come by than the data required to perform analyses on macro-level distances. As Dow and Karunaratna (2006) state: *"researchers rarely have the luxury of surveying a decision-maker's perceptions immediately prior to a critical decision."* (p.595)

To avoid this difficulty, researchers have often considered cultural distance and psychic distance to be equivalent (Eriksson et al., 2000; Fletcher and Bohn, 1998; Peng et al., 2000; Sethi et al., 2003; Shoham and Albaum, 1995; Trabold, 2002). However, Chapter 2 shows that the two are clearly distinct. They are two different theoretical concepts. Psychic distance is an individual appreciation existing in the mind of the beholder and thus subjective in nature, while distances such as cultural, institutional, administrative, geographic, economic, religious and linguistic distances reflect country-to-country differences. They do not depend on individual perceptions because they are neither micro-level nor subjective.

Nonetheless, while psychic distance has often been understood as reflecting perceptions of differences between a home and a host environment, many restricted these differences to cultural ones exclusively (Buckley and Casson, 1998; Pinto et al., 2012). Further down the road only cultural differences were accounted for using commonly available dimensions and indices (like the Kogut & Singh index), while the perceptual aspect became

vastly ignored out of convenience.

Besides this dominant realm of studies which considers cultural distance and psychic distance to be identical, other researchers acknowledge the specificities of the concept of psychic distance by putting individual perceptions at the forefront, as discussed in Chapter 2. Some studies in the IB literature have highlighted the fact that psychic distance is based on perception by directly asking respondents to assess which countries were more or less different in their opinion (Goerzen and Makino, 2007; Gray, 1997; Leonidou and Katsikeas, 1996). While Hakanson and Ambos (2010) do not negate this, they aggregated the individual assessments of psychic distance to the country level (thus filtering out the impact of individual variation in perceptions), which made possible to investigate possible antecedents of psychic distance at the macro-level, rarely done yet tantamount to our understanding of the concept. We do not precisely know what drives psychic distance, and so far have assumed solely macro-level variables are possible antecedents of psychic distance.

For now, psychic distance has been considered in a very unidimensional way. It mostly refers to overall perceptions without a suitable way to characterize them. Other types of distances (cultural, geographic, institutional, economic, administrative, etc.) are often appreciated in terms of "close vs far", but this is of limited use for psychic distance: perceptions, being the product of human judgment, are multi-faceted, and cannot be summed up in such a crude manner. Being "close" does not necessarily mean similar, easy to understand or work with (O'Grady and Lane, 1996). I suggest that psychic distance entails different facets or dimensions, and in this thesis consider that it can refer to both perceived differences (PDR) and perceived difficulties (PDC). Since distances reflect an extent of differences, psychic distance can be understood as the amount of differences perceived by each individual. A large number of studies (see Stahl and Tung, 2015, for a review) have linked distance with negative outcomes, due to the difficulties of doing business in an unfamiliar environment. Given this, psychic distance can also be understood as the amount of difficulties (of doing business in a foreign

environment and/or interacting with foreigners) perceived by each individual. Acknowledging that fellow team members are different does not necessarily mean that it will be more difficult to work with them than in a less diverse team. Individuals may well perceive differences as an opportunity rather than a burden: differences can be associated with larger learning opportunities, enhanced creativity, fruitful synergies, and reduced group-think (Evans and Mavondo, 2002; Evans et al., 2008; Hang and Godley, 2009; Morosini et al., 1998; Sousa et al., 2010). I do not mean here that PDR and PDC are the only two possible dimensions of psychic distance; I merely suggest that considering perceptions in (at least) two different ways can provide fruitful insight to further our understanding of the concept.

What I do in this chapter builds upon and extends what Hakanson and Ambos (2010) did in their seminal paper by exploring a different set of macro-level country-to-country differences on dyadic psychic distance scores (based on aggregated individual perceptions) reflecting either perceived differences (PDR) or perceived difficulties (PDC), controlled for individual characteristics and team properties since the setting in which this analysis is set includes global virtual teams (see Chapter 3). As mentioned in the introduction, studying psychic distance is much more challenging compared to macro-level distances. Likewise, studies (not limited to distance) taking into account personal characteristics of managers into decision-related issues (e.g., location choice) have been even scarcer. By personal characteristics I mean for example cultural intelligence and international experience. The individual level is largely understudied in the international business literature, even though it offers undeniable theoretical potential (Harzing, 2004); key characteristics of decision makers are virtually ignored.

A common assumption in the literature is that macro distances strongly influence (or even correlate with) psychic distance. In this chapter I test the extent to which this assumption is valid (Research Question 4.1). Besides, rather than considering psychic distance monolithically (i.e., without distinct dimensions, only in a far vs. close perspective), I make a clear distinction between two critical aspects of psychic distance: perceived differences (PDR)

and perceived difficulties (PDC). In this chapter I test whether making such a distinction between these two critical facets of psychic distance matter (Research Question 4.2).

> **RQ4.1:** *What is the relationship between macro-level, non-perceptual distances and psychic distance aggregated at the country-level?*

> **RQ4.2:** *Against the background of RQ4.1, is it meaningful to make a distinction between different aspects of psychic distance (here, PDR-perceived differences and PDC-perceived difficulties)?*

4.3 Data and Method

4.3.1 Sample

My sample consists of dyadic psychic distance scores (stemming from aggregated individual perceptions) and derives from calculations made in the previous chapter (Chapter 3). This study is not country-centered but has a *"multiple reference point design"* (van Hoorn and Maseland, 2016) since my dataset comprises data from 38 "home" countries assessing 38 "host" countries (Estrin et al., 2009; van Hoorn and Maseland, 2016). Respondents from 38 different countries are represented here, and 38 different countries are assessed in terms of perceived differences (PDR) and perceived difficulties (PDC). This gives a total of 259 country pairs for PDR, and 259 country pairs for PDC. After listwise deletion of the missing data for my independent variables, 121 country pairs remain.

Tables 4.1 and 4.2 displays the correlation matrix.

Table 4.1. Univariate statistics.

variable	Min	Med	Mean	Max	Std.dev	Skew	Kurt
(1) PDR_w_ALL	-3.585	0.017	0	3.544	1	0.031	0.239
(2) PDR_w_IND	-5.007	0.014	0	3.764	1	-0.211	2.124
(3) PDR_w_CD	-5.346	-0.019	0	3.706	1	-0.116	3.037
(4) PDC_w_ALL	-2.681	-0.091	0	2.741	1	0.084	-0.400
(5) PDC_w_IND	-3.179	-0.074	0	2.896	1	0.073	-0.080
(6) PDC_w_CD	-3.421	-0.090	0	3.006	1	0.017	0.131
(7) PDR_raw_ALL	-3.823	-0.030	0	3.048	1	-0.056	1.012
(8) PDR_raw_IND	-3.215	-0.016	0	3.073	1	-0.080	0.663
(9) PDR_raw_CD	-2.725	-0.061	0	4.468	1	0.476	1.821
(10) PDC_raw_ALL	-5.523	-0.117	0	4.548	1	-0.251	4.426
(11) PDC_raw_IND	-3.510	-0.106	0	4.129	1	0.203	1.119
(12) PDC_raw_CD	-3.960	-0.112	0	2.689	1	-0.005	0.456
(13) CULTURAL_DISTANCE_KS4	-1.367	-0.213	0	2.581	1	0.648	-0.483
(14) ADMIN_DISTANCE	-1.333	-0.265	0	2.682	1	0.577	-0.693
(15) GEO_DISTANCE	-4.180	0.214	0	1.353	1	-1.961	4.521
(16) ECON_DISTANCE	-2.611	0.018	0	2.648	1	0.003	-0.533
(17) PDS_Industrial_development	-2.273	0.000	0	2.273	1	0.000	-0.493
(18) PDS_Languages	-4.233	0.306	0	0.563	1	-2.454	5.321
(19) PDS_Levels_of_education	-1.340	-0.173	0	3.088	1	0.735	-0.095
(20) PDS_Religions	-1.453	-0.449	0	1.308	1	0.001	-1.677
(21) PDS_Socialism	-1.435	-0.150	0	2.423	1	0.538	-0.279
(22) PDS_Democracy	-1.267	-0.241	0	2.898	1	1.007	0.380

Table 4.2. Bivariate statistics.

variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
(1) PDR_w_ALL																					
(2) PDR_w_IND	0.95***																				
(3) PDR_w_CD	0.89***	0.94***																			
(4) PDC_w_ALL	0.44***	0.41***	0.39***																		
(5) PDC_w_IND	0.46***	0.46***	0.45***	0.93***																	
(6) PDC_w_CD	0.44***	0.45***	0.49***	0.87***	0.96***																
(7) PDR_raw_ALL	0.90***	0.84***	0.78***	0.36***	0.37***	0.36***															
(8) PDR_raw_IND	0.87***	0.91***	0.83***	0.33***	0.38***	0.37***	0.93***														
(9) PDR_raw_CD	0.81***	0.84***	0.92***	0.31***	0.37***	0.41***	0.84***	0.89***													
(10) PDC_raw_ALL	0.33***	0.30***	0.27***	0.89***	0.78***	0.72***	0.36***	0.33***	0.27***												
(11) PDC_raw_IND	0.35***	0.34***	0.33***	0.84***	0.91***	0.87***	0.35***	0.36***	0.33***	0.85***											
(12) PDC_raw_CD	0.35***	0.34***	0.38***	0.80***	0.89***	0.93***	0.33***	0.35***	0.38***	0.76***	0.94***										
(13) CULTURAL_DISTANCE_KS4	0.04	0.07	0.03	0.06	0.07	0.07	0.04	0.07	-0.01	0.00	0.00	0.00									
(14) ADMIN_DISTANCE	0.13*	0.17**	0.18**	0.15*	0.17**	0.15*	0.15*	0.18**	0.18**	0.14*	0.14*	0.13*	0.34***								
(15) GEO_DISTANCE	0.04	0.06	0.05	-0.07	-0.06	-0.07	0.01	0.02	0.02	-0.12	-0.12	-0.12*	0.33***	0.13*							
(16) ECON_DISTANCE	0.13*	0.15*	0.14*	-0.01	0.02	0.05	0.14*	0.14*	0.11	0.01	0.02	0.03	0.02	0.00	0.00						
(17) PDS_Industrial_development	0.10	0.17**	0.16*	-0.04	0.00	0.05	0.13*	0.17**	0.14*	-0.01	0.01	0.04	0.00	0.00	0.00	0.92***					
(18) PDS_Languages	0.03	0.01	0.04	-0.11	-0.10	-0.05	0.07	0.05	0.06	-0.10	-0.09	-0.03	0.19*	-0.07	0.22***	0.02	0.00				
(19) PDS_Levels_of_education	0.18**	0.21***	0.24***	0.14*	0.16*	0.17**	0.16*	0.20**	0.22***	0.11	0.12	0.15*	0.19**	0.64***	0.01	-0.03	0.00	-0.02			
(20) PDS_Religions	0.08	0.10	0.09	0.04	0.06	0.10	0.07	0.11	0.07	0.00	0.04	0.09	0.10	0.06	0.28***	0.02	0.00	0.23***	0.13*		
(21) PDS_Socialism	0.20**	0.19*	0.16*	0.15*	0.17*	0.17*	0.20**	0.20**	0.16*	0.18*	0.18*	0.18*	-0.17*	0.08	-0.12	-0.02	0.00	-0.01	0.17*	0.09	
(22) PDS_Democracy	-0.01	0.06	0.04	0.03	0.04	0.04	0.03	0.08	0.06	0.03	0.01	0.03	0.36***	0.35***	0.16*	-0.01	0.00	0.11	0.32***	0.28***	0.06

4.3.2 Variables description

Dependent variable. I consider two main dependent variables: psychic distance as perceived differences (PDR) and psychic distance as perceived difficulties (PDC). As explained in Chapter 3, to obtain the initial psychic distance as differences (PDR) scores, participants replied to the question: *"Based on your experience and knowledge about cultures around the world, please rate the degree of difference among the national cultures of the following countries [present in your team]"* (the answers ranging from 1 - identical, to 5 - very different); to obtain the initial psychic distance as difficulties (PDC) scores, participants replied to the question: *"Based on your knowledge of the working styles, cultural, linguistic, economic and political differences, rate the degree of ease/difficulty of people from the following countries [present in your team] would experience when working together"* (the answers ranging from 1 - very easy, to 5 - very difficult). The phrasing of both questions is consistent with common assumptions in the literature that I mentioned earlier: (1) that psychic distance is highly related to cultural differences only, excluding other types of macro distances; (2) that psychic distance is highly related to macro-level differences at the exclusion of other-level antecedents.

How the different dyadic psychic distance scores were obtained is extensively covered in Chapter 3 and will not be reproduced here. The regressions from the previous chapter provided "raw" coefficients which I transformed into "weighted" coefficients by dividing them by their associated standard error. In this chapter I use these weighted coefficients so as to give more weight in regressions to psychic distance scores which depend more on the home-host country pair at hand than other characteristics. Thanks to this, dyads for which the countries involved do matter quite a lot for perceived differences and difficulties have comparatively higher coefficients than the dyads for which it does not so much.

In the present chapter, the psychic distance scores for PDR and for PDC each have three different levels of control: (1) calculated with country dummies (presence or absence of that country on the team); (2) calculated

with country dummies and individual characteristics (age, gender, cultural intelligence, international experience); and (3) calculated with country dummies, individual characteristics, and team characteristics (age diversity, gender diversity, number of countries on the team).

Independent variables. In this chapter I want to investigate psychic distance antecedents. I consider two sets of macro-level, non-perceptual differences: CAGE (Ghemawat, 2001) and psychic distance stimuli (Dow and Karunaratna, 2006).

CAGE is an acronym coined by Ghemawat (2001) for cultural, administrative, geographic and economic distances. It is an integrative framework useful to address the question "why do countries or locations differ?" (Ricart et al., 2004). This framework has for example been used to measure the "degree of foreignness" of partners in a study on alliance portfolio internationalization (Lavie and Miller, 2008), and to investigate foreign affiliates' propensity to engage in CSR activities (Campbell et al., 2012).

In this chapter, the following distances comprising it are assessed as follows. First, for **cultural distance**, I used the first four Hofstede dimensions (power distance, individualism, uncertainty avoidance, masculinity) aggregated into the Kogut and Singh (1988) index. I only used the first four so as to minimize the number of missing values in my sample. The scores using the first four dimensions are highly correlated with the ones using all six dimensions (Beugelsdijk et al., 2018a). Then, to assess **administrative distance**, I calculated the average distance on the six World Governance Indicators (voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, control of corruption; Kaufmann and Mastruzzi, 2009) of the World Bank for the year 2013. As mentioned in Hakanson and Ambos (2010), *"although they estimate different aspects of governance, the indicators are highly correlated. With a Cronbach's alpha of 0.98, their average can be taken as a reliable construct for overall governance quality of a country"* (p.203). Then, I considered that **geographic distance** refers

to the distance in kilometers between the most populated cities according to the CEPII database (Mayer and Zignago, 2011). I use the logarithm of these measures (Doh et al., 2009; Frost and Zhou, 2005). Finally, I proxy **economic distance** using the relative difference between the home and the host country for the GDP per capita in the year 2013 in US dollars.

Dow and Karunaratna (2006) developed and tested several potential psychic distance stimuli. These included differences in language, religion, political systems, levels of education, and industrial development. They did not study psychic distance per se, but rather what they considered its main drivers (or in their own words, "stimuli"): *"A manager's perception of psychic distance (PDp) will be a function of the psychic distance stimuli he or she is exposed to"* (p. 580). This is what I use these stimuli for: assessing their respective impact on two measures of psychic distance (PDR-perceived differences and PDC-perceived difficulties).

Their measures have been used - among other factors - to study how within-MNE distances (between headquarters and affiliates) impacts resource allocation to innovation projects (Dellestrand and Kappen, 2012); to show that greater differences (proxied by both cultural distance and psychic distance stimuli) can lead to firms meeting their cost-saving targets even more so than in closer countries through the attention stimulus mechanism (Peeters et al., 2015); and in an aggregated form to rank 119 nations from Australia (Baack et al., 2015) so as to determine which ones were closest and furthest for a seminal experimental study on psychic distance.

Dow & Karunaratna's (2006) study included differences in terms of languages, religions, industrial development, levels of education and political systems and are all tested here. They are considered as drivers (or antecedents) rather than dimensions of psychic distance. How each psychic distance stimulus is proxied is extensively explained in Dow and Karunaratna (2006)] and will not be reproduced here. The scores associated with each psychic distance stimuli were retrieved from Professor Dow's website[2].

[2]https://sites.google.com/site/ddowresearch/home/scales

Differences in language. Dow and Karunaratna measured this using three different indicators coming from (Grimes and Grimes, 1996): (1) difference between major languages in the home and the host country (not limited to a mere dummy and acknowledges that some languages are more similar than others since they belong to a common family, branch, first level sub-branch or second level sub-branch; see Dow and Karunaratna (2006), pp.599-600); (2) the incidence of the home country's major language within the host country; (3) the incidence of the host country's major language within the home country.

Differences in levels of education. Three different measures are used to proxy this (Davidson and Mcfetridge, 1985; Hornell et al., 1972; Kobrin, 1976): (1) the difference in literacy rate between the home and the host country; (2) differences in the proportion of the population enrolled in second-level education (high school); (3) differences in the proportion of the population enrolled in third-level education (university).

Differences in industrial development. 10 different items from 1994-1995 data collected by the United Nations were used to assess differences in terms of industrial development between each home and host country. They include (1) differences in GDP per capita, (2) differences in the consumption of energy, (3) differences in vehicle ownership, (4) differences in the percentage of the workforce in agriculture, (5) differences in the percentage of GDP coming from manufacturing, (6) differences in the degree of urbanization, (7) differences in the number of newspapers for 1000 inhabitants, (8) differences in the number of radios for 1000 inhabitants, (9) differences in the number of telephones for 1000 inhabitants, (10) differences in the number of televisions for 1000 inhabitants.

Differences in political systems. Dow and Karunaratna (2006) measured this using two different dimensions: differences in the degree of democracy or political freedom, and Right-Left scales measure from Beck et al. (2001). The difference in Beck et al. (2001) Right–Centre–Left scale of political ideology is used here to measure differences in political systems.

Differences in religion. Similar to what was done to assess differences in language, three different indicators from Barrett (1982) were used: (1) difference between the dominant religion of the home country and of the host country on a five-point scale, (2) the incidence of the home country's dominant religion within the host country; (3) the incidence of the host country's dominant religion within the home country (see Dow and Karunaratna, 2006, p.600 for a detailed classification of religions and their divisions).

Control variables. Control variables were used in the previous chapter to derive the dyadic psychic distance scores for both PDR and PDC. The psychic distance scores used in this chapter incorporate the different controls from Chapter 3. They included age, gender, cultural intelligence, and international experience for individual characteristics, and age diversity, gender diversity, and number of countries present on the team for team characteristics.

4.3.3 Regressions

My empirical approach involves estimating the determinants of both dyadic PDR (psychic distance as perceived differences) and PDC (psychic distance as perceived difficulties), each comprising three different levels of control (no controls; individual characteristics; individual characteristics, and team characteristics) impacted differently by macro-level, objective distances.

I ran three regressions for each of them. In the first model (Model 1 in the tables) only the CAGE distances are used as independent variables; in the second one (Model 2 in the tables) only the psychic distance stimuli are used as independent variables. The first two models are linear regressions. Linear regressions were used since I had no reason to assume non-linear relationships among the different variables. A careful examination of the residuals' distribution showed they were homoscedastic (I ran a Breusch-Pagan test to assess the presence of heteroscedasticity). The third model (Model 3 in the tables) uses both CAGE distances and psychic distance stimuli as independent variables in a stepwise regression. All the variables were standardized and

centered.

The data was tested for problems of multicollinearity. The variance inflation factors (VIFs) were calculated for each regression coefficient. They were all below 10, indicating that the risk associated with multicollinearity is here very low (Belsey et al., 1980; Neter et al., 1985; Studenmund, 2001).

I ran the exact same regressions with alternative measures of geographic distance (not log vs log) and economic distance (absolute vs relative difference; total vs per capita) and the results did not change. The antecedents associated with each of the dependent variables remain virtually unchanged.

4.4 Results

4.4.1 Main findings

Just like at the individual level (see Chapter 3), at the aggregated level, dyadic PDR and PDC are lowly correlated and have different sets of antecedents among the CAGE distances (cultural, administrative, geographic, economic distances) and psychic distance stimuli (from Dow and Karunaratna, 2006, differences in languages, religions, industrial development, levels of education and political systems) investigated here.

For each dependent variable, in Model 1 only CAGE dimensions (Ghemawat, 2001) were entered as independent variables in a linear regression; in Model 2 only psychic distance stimuli (Dow and Karunaratna, 2006) were entered as independent variables in a linear regression; in Model 3 both CAGE dimensions and psychic distance stimuli were entered as independent variables. Summary tables displaying significant coefficients only are produced hereafter; full results tables (Tables 4.5-4.10) can be found in the appendix to this chapter. In the Tables 4.3 and 4.4, the dependent variable of the first three models is the aggregated psychic distance scores calculated using country dummies only in Chapter 3 ("CD" stands here for "Country Dummies"). The dependent variable for the next three models is the aggregated psychic distance scores calculated using both country dummies and individual characteristics of the respondents ("IND" stands for "individual"). The

dependent variable for the last three models is the aggregated psychic distance scores calculated using country dummies and individual characteristics of the respondents controlled for team characteristics. The first four independent variables correspond to the distances presented in the CAGE framework (Ghemawat, 2001) and the remaining five independent variables are the psychic distance stimuli from Dow and Karunaratna (2006). For psychic distance as perceived differences (Table 4.3), the coefficients associated with differences in levels of industrial development and differences in religions are the most consistently significant and positive, suggesting that the larger the religious distance between the home and the host country, the larger the psychic distance as perceived differences as well, and the larger the differences in industrial development between the home and the host country, the larger the perceived differences.

Table 4.3. Summary results table for the various dyadic psychic distance as perceived differences (PDR) scores reporting only the significant coefficients from the different regressions (Model 1: linear with CAGE; Model 2: linear with psychic distance stimuli; Model 3: stepwise with both CAGE and psychic distance stimuli)

Variable	CD_cage	CD_pds	CD_both	IND_cage	IND_pds	IND_both	ALL_cage	ALL_pds	ALL_both
ADMIN_DISTANCE	0.181*								
CULTURAL_DISTANCE_KS4									
ECON_DISTANCE									
GEO_DISTANCE									
PDS_Industrial_development		0.188**	0.188**		0.186**	0.183**			
PDS_Languages									
PDS_Levels_of_education									
PDS_Religions					0.191*	0.229**			0.172*
PDS_Socialism									

Table 4.4. Summary results table for the various dyadic psychic distance as perceived difficulties (PDC) scores reporting only the significant coefficients from the different regressions (Model 1: linear with CAGE; Model 2: linear with psychic distance stimuli; Model 3: stepwise with both CAGE and psychic distance stimuli)

Variable	CD_cage	CD_pds	CD_both	IND_cage	IND_pds	IND_both	ALL_cage	ALL_pds	ALL_both
ADMIN_DISTANCE									
CULTURAL_DISTANCE_KS4			0.174*			0.186**			
ECON_DISTANCE									
GEO_DISTANCE									
PDS_Industrial_development									
PDS_Languages									
PDS_Levels_of_education									
PDS_Religions			0.154*						
PDS_Socialism		0.207**	0.236**		0.189**	0.224**		0.159*	0.164*

The empirical results show interesting insights for all my research questions. I consider an individual variable to be a significant predictor if either the linear or the stepwise regression yielded a significant coefficient.

My first research question (RQ 4.1 - What is the relationship between objective distances and psychic distance?) was formulated to investigate the extent to which a common assumption in the literature is valid. My results show that macro-level differences only account for a very limited amount of the explained variance: the r-square is never higher than 0.098 for PDR and 0.110 for PDC. No matter which dimension (PDR or PDC) or which level of control my dependent variables never explain more than 11% of the dyadically determined variance. Most of the psychic distance variance remains unexplained by the macro-level distances commonly used as synonyms or assumed antecedents in the IB literature.

My second research question (RQ 4.2 - Does making a distinction between different aspects of psychic distance matter?) sheds a new light on whether to consider psychic distance as multidimensional or not. PDR and PDC have distinct antecedents among the independent variables considered here. Considering all the different levels of control in my study combined (i.e., in all levels of control: (1) country dummies only; (2) country dummies and individual characteristics; (3) country dummies, individual and team characteristics), PDR and PDC have distinct predictors. The two concepts are rather weakly correlated (0.35 at the individual level; once aggregated at the country-level, 0.38 when only country dummies are taken into account, 0.36 when country dummies and individual characteristics of the respondents are taken into account, and 0.36 when country dummies, individual characteristics of the respondents, and team characteristics are taken into account;see correlation matrices in Chapter 3), which means they have different meanings for the respondents and correspond to distinct concepts. I show here that in addition to that, they have distinct drivers stemming from the realm of macro-level, objective distances. First, as shown in tables 4.3 and 4.5-4.7, psychic distance as perceived differences' most consistently significant antecedents are differences in levels of industrial development and differences

in religions, while cultural distance and differences in political systems are significant drivers of psychic distance as perceived difficulties (see Tables 4.4 and 4.8-4.10). Second, Hakanson & Ambos' (2010) main result was that a major driver of psychic distance was geographic distance. My results show that it is never a significant antecedent of either psychic distance as perceived difficulties or psychic distance as perceived differences.

PDR and PDC also have distinct antecedents when considering each level of control separately. As can be seen in Table 4.3, at the first level (psychic distance scores calculated with country dummies only), PDR's specific and significant predictors is differences in levels of industrial development[3]. As can be seen in Table 4.4, PDC's specific and significant predictors are cultural distance and differences in political systems[4].

At the second level of control (psychic distance scores calculated with country dummies controlled for individual characteristics of the respondents), differences in levels of industrial development remain a significant predictor of PDR and differences in religions becomes a significant predictor of PDR. The same antecedents as before (cultural distance and differences in political systems) remain for PDC.

At the third level of control (psychic distance scores calculated with country dummies controlled for individual characteristics of the respondents and team characteristics), differences in political systems remains a significant determinant of PDC, unlike cultural distance. Differences in religions remain a significant predictor of PDR, unlike differences in levels of industrial development.

4.4.2 Additional analyses: other macro-level antecedents

All in all, my results suggest that dyadic psychic distance scores aggregated at the country level do not seem to be much driven by aggregate-level phenomena. The explained variance remains very low when

[3]Administrative distance is also significant and of the expected positive sign, but is never significant in other models

[4]Differences in religions is also significant and of the expected positive sign, but is never significant in other models

considering either CAGE distances (Ghemawat, 2001) or psychic distance stimuli (Dow and Karunaratna, 2006). Since these distances do not explain much of the variance of my aggregated, dydic psychic distance scores, what else could it be?

Some scholars suggested that there may not be a distance effect but rather a host country effect (Brouthers et al., 2016; Harzing and Pudelko, 2016, 2014; van Hoorn and Maseland, 2016). The reasoning behind this is that it is the specific characteristics of the host country which matter, not the extent to which it is different from the home country (*"It is not cultural distance that matters, but the institutional environments in home and in particular host countries"*, Harzing and Pudelko, 2014, p.19). Most of the literature on distance focuses on either one single home (or host) country; with such setting, distance effects are impossible to disentangle from host country effects. As Brouthers et al. (2016) phrase it, *"we cannot know with certainty whether it is cultural distance or national culture that is driving the results"* (p. 476). Such a claim has already received some empirical support (*"We conclude that the explanatory power of distance is highly limited once home and host country context are accounted for"*, Harzing and Pudelko, 2016). As a robustness test, I test whether there could be a difference in levels (distance effect versus host country effect, i.e. absolute versus relative distances versus host country scores). Table 4.11 shows the results of the regressions using as independent variables the scores of the host country on the Hofstede's cultural dimensions, each World Governance Indicator separately, and the GDP per capita. Table 4.12 shows the results of the regressions using as independent variables the absolute difference between the home and the host country (variables ending in _abs) on each psychic distance stimuli. Tables 4.13 and Table 4.14 show the results of the regressions using as independent variables the scores of the host country (variables ending in _host) on each Big Five personality traits (aggregated personality traits as well as self-stereotypes, respectively) as well as the absolute distance between the home and the host country (variables ending in _abs). Table 4.15 shows the results of the regressions using as independent variables the absolute differences between the home and the host

country (variables ending in _abs) on each dimension of The Good Country index as well as the scores of the host country (variables ending in _host). Table 4.16 shows the results of the regressions using as independent variables the absolute differences between the home and the host country (variables ending in _abs) as well as the scores for the host country (variables ending in _host) for different items of the World Happiness Report.

A second concern may be that the focus on CAGE and PDS determinants is too limited. To check that I also use aggregated personality traits (McCrae and Terracciano, 2005a,b), self-stereotypes measures[5]. (McCrae et al., 2007) derived from the Big Five personality traits (Digman, 1990; Goldberg, 1993), data from The Good Country index[6] and the World Happiness Report[7] on my most thorough dyadic psychic distance scores (the ones calculated using country dummies controlled for both individual and team characteristics). The results are displayed in Tables 4.13-4.16 in the Appendix. In these tables, Models 1 to 3 have psychic distance as perceived *differences* as dependent variable, while Models 4 to 6 have psychic distance as perceived *difficulties* as dependent variable.

The Big Five personality traits were originally used to describe personality at the individual level in terms of openness to experience (the extent to which a person is curious and enjoys novelty and variety), conscientiousness (associated with self-discipline, careful planning and reliability), extraversion (whether one is more outgoing or solitary), agreeableness (reflects one's degree of trust towards others, seen as cooperative or suspicious), and neuroticism (the tendency to display negative emotions such as anxiety and anger and to lack emotional stability)[8]. These individual data were aggregated at the country level (McCrae and Terracciano, 2005a,b; McCrae et al., 2007); this is what is used in this chapter. For the aggregated

[5]There were six different components for each Big Five trait (Openness to experience, Conscientiousness, Extraversion, Agreeableness, Neuroticism), yielding a total of 30 independent variables to investigate here. We reduced this number to five through principal components analysis.

[6]Source: https://goodcountry.org/index/overall-rankings

[7]Source: http://worldhappiness.report/ed/2013/

[8]More information can be found here: https://www.ocf.berkeley.edu/~johnlab/bfi.htm

personality traits version, college students from 51 countries were asked to rate someone from their own country that they know well (N = 12156); for the self-stereotypes version, ratings of the typical member of 49 countries were obtained from 3989 participants asked to rate someone typical from their country.

The Good Country index is included here so as to represent the countries' relative reputation over a number of dimensions. The index started as a project by Simon Anholt and is set to represent the extent to which each country individually *"contributes to the common good of humanity and to the planet"*[9]. Based on objective data[10], it displays their ranks along seven dimensions: science & technology, culture, international peace & security, world order, planet & climate, prosperity & equality, and health & wellbeing. Data was available for 163 countries.

The World Happiness Report 2013 dimensions were included so as to test the effect of perceptions on psychic distance. The data is subjective in that participants are asked to report how (un)happy they currently are, from 0 to 10 using the image of a ladder; it is subsequently aggregated at the country level. The data is made up of survey data from the Gallup World Poll and ranks 135 countries in terms of their happiness levels. The survey questions cover nine dimensions (Happiness; Healthy Life Expectancy; Social Support; Freedom of Life Choices; Charity Donations; Corruption Perception; Happiness, Laugh, Enjoyment; Worry, Sadness, Anger; Confidence in Government), and one is derived from the World Values Survey (Most People can be Trusted). Three dimensions (Charity Donations; Confidence in Government; Most People can be Trusted) were dropped so as to minimize the number of missing observations.

Absolute or relative distances, CAGE (Table 4.11), psychic distance stimuli (Table 4.12), Big Five personality traits (aggregated personality traits as well as self-stereotypes, Tables 4.13 and Table 4.14 respectively), variables

[9]https://goodcountry.org/good-country/data-treatment

[10]You may refer to https://goodcountry.org/index/source-data to know which criteria are taken into account for each dimension.

from The Good Country index (Table 4.15) or from the World Happiness Report (Table 4.16), the explained variance remains very low.

It suggests that psychic distance cannot properly be explained by macro-level differences (CAGE, PDS, aggregated Big Five personality traits, The Good Country index, the World Happiness Report) between a home and a host country, but is a genuinely separate construct.

My results provide a nuance to the literature: cultural distance was only a significant predictor of psychic distance as perceived difficulties, not as perceived differences.

4.5 Discussion and Conclusion

My main conclusion is that the common assumption held in the literature that macro-level, objective distances are proper antecedents of psychic distance is questionable. Macro differences are only weakly related to perceptual distances, as my main findings show (investigating CAGE distances and psychic distance stimuli as independent variables), and even when considering psychology data (the Big Five personality traits), relative reputation (or branding) of the different countries (The Good Country index) or subjective data (World Happiness Survey), testing for relative distances, absolute distances, and host country effects.

Another interesting result of this study lies in the fact that considering psychic distance as a multidimensional construct yields interesting insights. Psychic distance as perceived differences and as perceived difficulties are not driven by the same antecedents. Geographic distance was never a significant predictor of psychic distance, neither as perceived differences nor perceived difficulties, which goes against the results from Hakanson and Ambos (2010) that geographic distance is a prime antecedent of psychic distance in general. Several explanations can be suggested to explain this discrepancy. First, this may be related to our different ways of calculating psychic distance scores: I derive my psychic distance scores in a fundamentally different way than they did. Second, how the questions were formulated to the participants to

obtain these psychic distance scores differ: in Hakanson and Ambos' (2010) study, *"Respondents were asked to indicate to what extent they perceived foreign countries to be close or far away, in terms of psychic distance, from their home countries"*. In line with the definition adopted for the study 'psychic distance' was defined in the questionnaire as the *'sum of factors (**cultural or language differences, geographical distance**, etc.) that affect the flow and interpretation of information to and from a foreign country."'* (page 201; bold added). However, my participants answered the following questions: *Based on your experience and knowledge about **cultures** around the world, how different or similar would you say are the **cultures** of these countries?* (for psychic distance as perceived differences) and *Based on your experience, how difficult or easy would it be to work together for people from these **cultures**?* (for psychic distance as perceived difficulties). In both phrasings, there is emphasis on cultural differences, but only in Hakanson and Ambos' (2010) study is geographical distance explicitly mentioned. This may have caused their participants to take it more into account than mine when assessing scores of psychic distance. Third, because my participants were set to work in global virtual teams, they may have felt that geographic distance had little to no impact: ex ante, my participants may integrate the notion that geographic distance is not relevant because they will work in global virtual teams, assuming that the internet deletes physical distance in this case, and is thus not relevant to assess psychic distance. Cultural distance is a predictor of psychic distance as perceived difficulties but not of psychic distance as perceived differences (its most common acception in the literature). This result is insightful in that it nuances a common (but so far untested) assumption since the literature tends to equate psychic distance with cultural distance (Eriksson and Hadjikhani, 2000; Fletcher and Bohn, 1998; Peng et al., 2000; Sethi et al., 2003; Shoham and Albaum, 1995; Trabold, 2002).

4.5.1 Contributions

My contributions to the field are two-fold. First, I showed that non-perceptual differences taken at the country level only explain psychic

distance to a very limited extent (less than 11%). It follows that cultural or geographic distances may not be proper proxies of psychic distance, unlike what some studies claimed (Dunning et al., 2007a,b; Gomes and Ramaswamy, 1999; Kogut and Singh, 1988; Mariotti and Piscitello, 1995; O'Grady and Lane, 1996; Sethi et al., 2003; Simonin, 1999a,b; Yeniyurt et al., 2009). We should steer away from this approach and complement these distances with variables stemming from different levels (not limited to country-level variables but also take into account individual characteristics of the respondents, for instance) or of a different nature (e.g., dyadic perceptions rather than differences based on objective data). Second, I treated psychic distance as a multifaceted concept with (at least) two dimensions: perceived differences and perceived difficulties. The two are lowly correlated and have different macro-level antecedents suggesting they cover different aspects of outward perceptions. This distinction implies that perceiving differences does not equate perceiving difficulties, thus inviting a more positive appreciation of differences than what is commonly assumed in the literature (in line with Stahl and Tung, 2015). I do not claim that they are the only dimensions of psychic distance possible, and more theoretical research effort should be devoted to finding relevant ones.

4.5.2 Limitations

As is the case with most research, this investigation contains some limitations. As explained in Chapter 3, the first one is that the participants were business school students. However, much effort went into carefully designing conditions close to a corporate environment (similar task, not giving a choice who you work with) and the students undergoing this project can be considered as the "managerial decision-makers of tomorrow" (Magnusson et al., 2014, p.302). Gaining such privileged access to cohorts of corporate teams, similar in both numbers and diversity (my respondents represent 38 home countries and 38 host countries) and willing to answer survey questions every week for two months would have been an impossible task. Another limitation is that my dyadic psychic distance scores were calculated in an

indirect way (in the previous chapter) rather than asking each participant to assess their perceived differences and difficulties towards each team member separately. This may make my data noisy, and this may be an additional reason why the macro-level differences I selected here do not explain much of the variance of the aggregated psychic distance scores I calculated in the previous chapter. This is in line with what Baack et al. (2015) point out: "While national-level factors are statistically significant predictors of individual-level perceptions of distance, the overall effect sizes remain quite small." (p.940)

4.5.3 Avenues for further research

IB research may benefit from this more fine-grained view of psychic distance. Managing within-team diversity represents a major challenge for managers worldwide. The workforce grows increasingly diverse, and intercultural differences cover only one aspect of the possible types of diversity. Knowing that perceived differences do not systematically imply perceived difficulties, as well as what drives these perceptions, provides insights for managers of global and/or intercultural teams (virtual or not). Future studies could shed light on which individual characteristics (dominant personality traits, previous life and work experiences, etc.) of the different team members make for a smoother workflow and higher performance. The more fine-grained appreciation of psychic distance put forth in this chapter also has implications for internationalization studies. Acknowledging that country-level differences relate only poorly to psychic distance has the potential to redirect research into a more fruitful direction. Insofar as location choices are decisions originating in the minds of managers, understanding how differences and difficulties are perceived and what their antecedents are is of critical importance. Beyond properly assessing these perceptions, further research should aim at understanding how to modify those perceptions towards more optimism, appreciating diversity for its potentially positive outcomes - synergies, creativity, etc., and perceiving fewer difficulties associated with it.

Appendix

Table 4.5. Impact of CAGE and PDS variables on dyadic PDR scores calculated using country dummies only

	Dependent variable:					
	PDR_w_CD					
	(1)	(2)	(3)	(4)	(5)	(6)
CULTURAL_DISTANCE_KS4	−0.049			−0.053		
	(0.103)			(0.104)		
ADMIN_DISTANCE	0.181*			0.178*		
	(0.104)			(0.104)		
GEO_DISTANCE	−0.029			−0.023	−0.064	
	(0.092)			(0.092)	(0.094)	
ECON_DISTANCE	0.138			0.130		
	(0.091)			(0.092)		
PDS_Religions		0.138	0.150		0.157	0.150
		(0.097)	(0.094)		(0.100)	(0.094)
PDS_Languages		0.032			0.051	
		(0.091)			(0.092)	
PDS_Industrial_development		0.188**	0.188**		0.178**	0.188**
		(0.089)	(0.088)		(0.090)	(0.088)
PDS_Levels_of_education		0.137	0.140		0.134	0.140
		(0.095)	(0.094)		(0.095)	(0.094)
PDS_Socialism		0.036			0.047	
		(0.090)			(0.092)	
PDR_pval_CD				−0.061	−0.092	
				(0.093)	(0.091)	
Constant	0.000	0.000	0.000	0.000	0.000	0.000
	(0.090)	(0.088)	(0.088)	(0.091)	(0.089)	(0.088)
Observations	121	121	121	121	121	121
R^2	0.046	0.092	0.090	0.049	0.105	0.090
Adjusted R^2	0.013	0.053	0.067	0.008	0.049	0.067
Residual Std. Error	0.994 (df = 116)	0.973 (df = 115)	0.966 (df = 117)	0.996 (df = 115)	0.975 (df = 113)	0.966 (df = 117)
F Statistic	1.392 (df = 4; 116)	2.344** (df = 5; 115)	3.873** (df = 3; 117)	1.197 (df = 5; 115)	1.888* (df = 7; 113)	3.873** (df = 3; 117)

Note: *p<0.1; **p<0.05; ***p<0.01

Table 4.6. Impact of CAGE and PDS variables on dyadic PDR scores calculated using country dummies and individual characteristics of the respondents

	Dependent variable:					
	PDR_w_IND					
	(1)	(2)	(3)	(4)	(5)	(6)
CULTURAL_DISTANCE_KS4	−0.011			−0.009		
	(0.103)			(0.104)		
ADMIN_DISTANCE	0.163			0.159		
	(0.104)			(0.105)		
GEO_DISTANCE	0.002			0.0002	−0.031	
	(0.092)			(0.092)	(0.094)	
ECON_DISTANCE	0.144			0.147		
	(0.091)			(0.091)		
PDS_Religions		0.191*	0.229**		0.198*	0.229**
		(0.097)	(0.088)		(0.100)	(0.088)
PDS_Languages		−0.035			−0.033	
		(0.090)			(0.093)	
PDS_Industrial_development		0.186**	0.183**		0.188**	0.183**
		(0.089)	(0.088)		(0.090)	(0.088)
PDS_Levels_of_education		0.114			0.111	
		(0.095)			(0.096)	
PDS_Socialism		0.029			0.026	
		(0.090)			(0.092)	
PDR_pval_IND				0.032	0.020	
				(0.092)	(0.093)	
Constant	0.000	0.000	0.000	0.000	0.000	0.000
	(0.090)	(0.088)	(0.088)	(0.091)	(0.089)	(0.088)
Observations	121	121	121	121	121	121
R^2	0.047	0.098	0.085	0.048	0.100	0.085
Adjusted R^2	0.014	0.059	0.070	0.006	0.044	0.070
Residual Std. Error	0.993 (df = 116)	0.970 (df = 115)	0.964 (df = 118)	0.997 (df = 115)	0.978 (df = 113)	0.964 (df = 118)
F Statistic	1.418 (df = 4; 116)	2.511** (df = 5; 115)	5.499*** (df = 2; 118)	1.150 (df = 5; 115)	1.786* (df = 7; 113)	5.499*** (df = 2; 118)
Note:						*p<0.1; **p<0.05; ***p<0.01

Table 4.7. Impact of CAGE and PDS variables on dyadic PDR scores calculated using country dummies, team properties and individual characteristics of the respondents

	Dependent variable:					
	PDR_w_ALL					
	(1)	(2)	(3)	(4)	(5)	(6)
CULTURAL_DISTANCE_KS4	−0.084			−0.088		
	(0.104)			(0.105)		
ADMIN_DISTANCE	0.150			0.154		
	(0.104)			(0.106)		
GEO_DISTANCE	−0.028			−0.028	−0.064	
	(0.092)			(0.093)	(0.096)	
ECON_DISTANCE	0.134		0.134	0.134		
	(0.091)		(0.090)	(0.092)		
PDS_Religions		0.141	0.172*		0.155	0.173*
		(0.099)	(0.090)		(0.103)	(0.090)
PDS_Languages		−0.005			0.010	
		(0.093)			(0.096)	
PDS_Industrial_development		0.134			0.134	0.133
		(0.091)			(0.091)	(0.090)
PDS_Levels_of_education		0.074			0.075	
		(0.097)			(0.098)	
PDS_Socialism		0.039			0.041	
		(0.092)			(0.094)	
PDR_pval_ALL				−0.024	−0.027	
				(0.093)	(0.094)	
Constant	−0.000	−0.000	−0.000	−0.000	−0.000	−0.000
	(0.091)	(0.090)	(0.089)	(0.091)	(0.091)	(0.089)
Observations	121	121	121	121	121	121
R^2	0.036	0.054	0.048	0.036	0.058	0.047
Adjusted R^2	0.002	0.012	0.031	-0.006	-0.001	0.031
Residual Std. Error	0.999 (df = 116)	0.994 (df = 115)	0.984 (df = 118)	1.003 (df = 115)	1.000 (df = 113)	0.984 (df = 118)
F Statistic	1.073 (df = 4; 116)	1.300 (df = 5; 115)	2.944* (df = 2; 118)	0.865 (df = 5; 115)	0.990 (df = 7; 113)	2.919* (df = 2; 118)
Note:						*p<0.1; **p<0.05; ***p<0.01

Table 4.8. Impact of CAGE and PDS variables on dyadic PDC scores calculated using country dummies only

	Dependent variable:					
	PDC_w_CD					
	(1)	(2)	(3)	(4)	(5)	(6)
CULTURAL_DISTANCE_KS4	0.082		0.174*	0.028		
	(0.104)		(0.089)	(0.101)		
ADMIN_DISTANCE	0.101			0.084		
	(0.104)			(0.100)		
GEO_DISTANCE	−0.092		−0.129	−0.058	−0.079	
	(0.092)		(0.091)	(0.089)	(0.091)	
ECON_DISTANCE	0.025			0.046		
	(0.091)			(0.088)		
PDS_Religions		0.106	0.154*		0.104	
		(0.098)	(0.092)		(0.097)	
PDS_Languages		−0.067			−0.011	
		(0.091)			(0.090)	
PDS_Industrial_development		0.057			0.074	
		(0.089)			(0.086)	
PDS_Levels_of_education		0.098			0.083	
		(0.095)			(0.092)	
PDS_Socialism		0.207**	0.236**		0.156*	0.178**
		(0.091)	(0.091)		(0.089)	(0.087)
PDC_pval_CD				0.301***	0.268***	0.284***
				(0.090)	(0.090)	(0.087)
Constant	−0.000	−0.000	0.000	−0.000	−0.000	−0.000
	(0.091)	(0.089)	(0.087)	(0.087)	(0.086)	(0.085)
Observations	121	121	121	121	121	121
R^2	0.030	0.085	0.110	0.115	0.160	0.132
Adjusted R^2	-0.004	0.045	0.080	0.077	0.108	0.117
Residual Std. Error	1.002 (df = 116)	0.977 (df = 115)	0.959 (df = 116)	0.961 (df = 115)	0.944 (df = 113)	0.940 (df = 118)
F Statistic	0.889 (df = 4; 116)	2.131* (df = 5; 115)	3.596*** (df = 4; 116)	2.997** (df = 5; 115)	3.085*** (df = 7; 113)	8.963*** (df = 2; 118)
Note:						*p<0.1; **p<0.05; ***p<0.01

Table 4.9. Impact of CAGE and PDS variables on dyadic PDC scores calculated using country dummies and individual characteristics of the respondents

	Dependent variable:					
	PDC_w_IND					
	(1)	(2)	(3)	(4)	(5)	(6)
CULTURAL_DISTANCE_KS4	0.082		0.186**	0.025		
	(0.104)		(0.091)	(0.103)		
ADMIN_DISTANCE	0.105			0.109		
	(0.105)			(0.102)		
GEO_DISTANCE	−0.049			−0.019	−0.020	
	(0.093)			(0.091)	(0.092)	
ECON_DISTANCE	−0.003			0.028		
	(0.092)			(0.090)		
PDS_Religions		0.095	0.134		0.099	
		(0.098)	(0.091)		(0.098)	
PDS_Languages		−0.105	−0.130		−0.094	
		(0.091)	(0.091)		(0.090)	
PDS_Industrial_development		0.020			0.043	
		(0.089)			(0.087)	
PDS_Levels_of_education		0.123			0.132	0.152*
		(0.095)			(0.093)	(0.087)
PDS_Socialism		0.189**	0.224**		0.154*	0.169*
		(0.091)	(0.091)		(0.089)	(0.087)
PDC_pval_IND				0.257***	0.249***	0.250***
				(0.092)	(0.089)	(0.087)
Constant	0.000	0.000	0.000	−0.000	0.000	−0.000
	(0.091)	(0.089)	(0.088)	(0.089)	(0.087)	(0.086)
Observations	121	121	121	121	121	121
R^2	0.026	0.082	0.101	0.088	0.144	0.127
Adjusted R^2	-0.008	0.042	0.070	0.048	0.091	0.105
Residual Std. Error	1.004 (df = 116)	0.979 (df = 115)	0.964 (df = 116)	0.976 (df = 115)	0.954 (df = 113)	0.946 (df = 117)
F Statistic	0.775 (df = 4; 116)	2.054* (df = 5; 115)	3.263** (df = 4; 116)	2.208* (df = 5; 115)	2.708** (df = 7; 113)	5.692*** (df = 3; 117)

Note: *p<0.1; **p<0.05; ***p<0.01

Table 4.10. Impact of CAGE and PDS variables on dyadic PDC scores calculated using country dummies, team properties and individual characteristics of the respondents

	Dependent variable:					
	PDC_w_ALL					
	(1)	(2)	(3)	(4)	(5)	(6)
CULTURAL_DISTANCE_KS4	0.022			0.001		
	(0.104)			(0.101)		
ADMIN_DISTANCE	0.149			0.135		
	(0.104)			(0.102)		
GEO_DISTANCE	−0.094			−0.080	−0.070	
	(0.092)			(0.090)	(0.093)	
ECON_DISTANCE	−0.015			0.023		
	(0.091)			(0.090)		
PDS_Religions		0.038			0.073	
		(0.099)			(0.099)	
PDS_Languages		−0.122			−0.102	
		(0.092)			(0.091)	
PDS_Industrial_development		−0.027			0.009	
		(0.090)			(0.089)	
PDS_Levels_of_education		0.150	0.149		0.140	0.156*
		(0.096)	(0.090)		(0.094)	(0.088)
PDS_Socialism		0.159*	0.164*		0.114	
		(0.092)	(0.090)		(0.091)	
PDC_pval_ALL				0.252***	0.238***	0.260***
				(0.091)	(0.091)	(0.088)
Constant	0.000	0.000	0.000	0.000	0.000	0.000
	(0.091)	(0.090)	(0.089)	(0.089)	(0.088)	(0.087)
Observations	121	121	121	121	121	121
R^2	0.030	0.068	0.053	0.092	0.127	0.094
Adjusted R^2	-0.003	0.028	0.037	0.052	0.073	0.079
Residual Std. Error	1.002 (df = 116)	0.986 (df = 115)	0.981 (df = 118)	0.974 (df = 115)	0.963 (df = 113)	0.960 (df = 118)
F Statistic	0.910 (df = 4; 116)	1.689 (df = 5; 115)	3.299** (df = 2; 118)	2.324** (df = 5; 115)	2.346** (df = 7; 113)	6.118*** (df = 2; 118)

Note: *p<0.1; **p<0.05; ***p<0.01

Table 4.11. Impact of CAGE distances (relative and absolute differences and values for the host country) on dyadic PDR and PDC scores calculated using country dummies, team properties and individual characteristics of the respondents

	Dependent variable:							
	PDR_raw_ALL				PDC_raw_ALL			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CULTURAL_DISTANCE_KS4	−0.062	0.003		0.037	−0.0004	0.001		0.022
	(0.089)	(0.095)		(0.106)	(0.090)	(0.096)		(0.107)
ADMIN_DISTANCE	0.158**	0.238***		0.266**	0.141*	0.142		0.083
	(0.080)	(0.090)		(0.109)	(0.081)	(0.091)		(0.110)
GEO_DISTANCE	0.025	0.033		0.044	−0.133*	−0.133*		−0.107
	(0.076)	(0.076)		(0.079)	(0.077)	(0.077)		(0.080)
ECON_DISTANCE	0.162**			0.207	0.009			−0.090
	(0.079)			(0.128)	(0.080)			(0.129)
ECON_DISTANCE_abs		−0.304*		−0.421*		−0.005		0.110
		(0.159)		(0.222)		(0.161)		(0.225)
Power_distance_host			0.006	0.007			−0.012	0.004
			(0.008)	(0.010)			(0.008)	(0.011)
Individualism_host			−0.015**	−0.010			−0.013*	−0.008
			(0.007)	(0.011)			(0.007)	(0.011)
Masculinity_host			−0.001	−0.002			0.006	0.004
			(0.005)	(0.006)			(0.005)	(0.006)
Uncertainty_avoidance_host			0.0002	−0.002			−0.007	−0.007
			(0.005)	(0.006)			(0.005)	(0.006)
Control_of_corruption_host			−0.839*	−0.344			−1.171**	−1.105
			(0.478)	(0.755)			(0.498)	(0.763)
Government_effectiveness_host			−1.018	−0.837			−0.178	−1.341
			(0.667)	(0.891)			(0.696)	(0.900)
Political_stability_and_absence_of_violence_terrorism_host			−0.081	0.014			0.067	0.024
			(0.147)	(0.201)			(0.153)	(0.203)
Rule_of_law_host			2.056***	1.231			1.341*	1.980*
			(0.686)	(1.077)			(0.716)	(1.089)
Regulatory_quality			0.077	−0.036			−0.147	0.533
			(0.415)	(0.647)			(0.433)	(0.654)
Voice_and_accountability_host			−0.056	0.160			0.166	−0.100
			(0.232)	(0.290)			(0.242)	(0.293)
GDPcap_host			0.00000	0.00001			−0.00000	0.00000
			(0.00001)	(0.00001)			(0.00001)	(0.00001)
Constant	0.007	0.236*	0.300	0.390	−0.074	−0.070	1.403*	0.209
	(0.077)	(0.141)	(0.772)	(1.019)	(0.078)	(0.142)	(0.806)	(1.030)
Observations	163	163	220	163	163	163	220	163
R^2	0.052	0.048	0.086	0.117	0.033	0.033	0.068	0.102
Adjusted R^2	0.028	0.024	0.038	0.020	0.009	0.009	0.018	0.004
Residual Std. Error	0.977 (df = 158)	0.979 (df = 158)	0.977 (df = 208)	0.981 (df = 146)	0.990 (df = 158)	0.990 (df = 158)	1.020 (df = 208)	0.992 (df = 146)
F Statistic	2.156* (df = 4; 158)	2.002* (df = 4; 158)	1.778* (df = 11; 208)	1.206 (df = 16; 146)	1.362 (df = 4; 158)	1.359 (df = 4; 158)	1.371 (df = 11; 208)	1.036 (df = 16; 146)
Note:								*p<0.1; **p<0.05; ***p<0.01

Table 4.12. Impact of psychic distance stimuli (relative and absolute differences) on dyadic PDR and PDC scores calculated using country dummies, team properties and individual characteristics of the respondents

	Dependent variable:					
	PDR_raw_ALL			PDC_raw_ALL		
	(1)	(2)	(3)	(4)	(5)	(6)
PDS_Industrial_development	0.107		0.107	0.003		0.003
	(0.071)		(0.071)	(0.069)		(0.069)
PDS_Languages	0.066		0.143	−0.062		−0.279
	(0.069)		(0.240)	(0.067)		(0.234)
PDS_Levels_of_education	0.094		0.046	0.057		0.081
	(0.074)		(0.098)	(0.072)		(0.096)
PDS_Religions	0.055		0.010	0.021		0.109
	(0.074)		(0.086)	(0.072)		(0.084)
PDS_Socialism	0.189**		0.165**	0.166**		0.136*
	(0.075)		(0.078)	(0.073)		(0.076)
PDS_Industrial_development_abs		−0.047	−0.086		0.210*	0.097
		(0.129)	(0.156)		(0.125)	(0.152)
PDS_Languages_abs		−0.134	0.050		0.081	−0.234
		(0.091)	(0.303)		(0.088)	(0.295)
PDS_Levels_of_education_abs		0.385***	0.312**		−0.132	−0.268*
		(0.133)	(0.154)		(0.129)	(0.150)
PDS_Religions_abs		−0.378*	−0.323		−0.441**	−0.490**
		(0.220)	(0.226)		(0.213)	(0.220)
PDS_Socialism_abs		0.044	−0.023		0.263*	0.147
		(0.138)	(0.147)		(0.133)	(0.143)
Constant	0.013	0.151	0.136	0.025	0.132	0.679
	(0.076)	(0.298)	(0.442)	(0.074)	(0.289)	(0.431)
Observations	186	186	186	186	186	186
R^2	0.073	0.071	0.112	0.041	0.054	0.087
Adjusted R^2	0.047	0.046	0.061	0.014	0.028	0.035
Residual Std. Error	1.006 (df = 180)	1.007 (df = 180)	0.999 (df = 175)	0.984 (df = 180)	0.977 (df = 180)	0.973 (df = 175)
F Statistic	2.836** (df = 5; 180)	2.765** (df = 5; 180)	2.197** (df = 10; 175)	1.531 (df = 5; 180)	2.066* (df = 5; 180)	1.671* (df = 10; 175)
Note:						*p<0.1; **p<0.05; ***p<0.01

Table 4.13. Impact of the Big Five personality traits as aggregated personality traits (relative and absolute differences and values for the host country) on dyadic PDR and PDC scores calculated using country dummies, team properties and individual characteristics of the respondents.

	Dependent variable:							
	PDR_raw_ALL				PDC_raw_ALL			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
openness_apt	−0.024			0.042	−0.038			−0.007
	(0.044)			(0.070)	(0.046)			(0.074)
conscientiousness_apt	0.116			0.144	0.032			0.040
	(0.084)			(0.119)	(0.087)			(0.126)
extraversion_apt	−0.015			0.041	0.013			0.051
	(0.028)			(0.048)	(0.029)			(0.051)
agreeableness_apt	−0.025			0.016	0.029			0.103
	(0.096)			(0.136)	(0.099)			(0.144)
neuroticism_apt	0.0002			−0.016	−0.051			−0.054
	(0.038)			(0.059)	(0.040)			(0.063)
openness_apt_abs		0.022		0.095		0.060		0.111
		(0.060)		(0.072)		(0.062)		(0.077)
conscientiousness_apt_abs		−0.008		−0.087		0.044		−0.014
		(0.103)		(0.112)		(0.106)		(0.119)
extraversion_apt_abs		0.095*		0.039		0.032		−0.020
		(0.052)		(0.063)		(0.053)		(0.067)
agreeableness_apt_abs		−0.034		0.025		−0.057		−0.009
		(0.123)		(0.125)		(0.126)		(0.132)
neuroticism_apt_abs		0.026		0.027		−0.064		−0.065
		(0.060)		(0.064)		(0.061)		(0.067)
openness_apt_host			−0.020	−0.131			−0.041	−0.061
			(0.048)	(0.109)			(0.050)	(0.115)
conscientiousness_apt_host			0.047	−0.056			−0.031	−0.016
			(0.091)	(0.169)			(0.095)	(0.179)
extraversion_apt_host			−0.049	−0.112			0.009	−0.076
			(0.033)	(0.079)			(0.035)	(0.083)
agreeableness_apt_host			−0.087	−0.083			0.016	−0.148
			(0.109)	(0.194)			(0.114)	(0.205)
neuroticism_apt_host			0.058	0.032			−0.048	0.005
			(0.047)	(0.090)			(0.049)	(0.095)
Constant	−0.009	−0.333	2.566	17.232*	−0.095	−0.133	4.668	14.726
	(0.102)	(0.276)	(3.630)	(9.163)	(0.105)	(0.283)	(3.789)	(9.697)
Observations	102	102	163	102	102	102	163	102
R^2	0.056	0.040	0.039	0.155	0.026	0.019	0.014	0.081
Adjusted R^2	0.007	-0.010	0.008	0.007	-0.025	-0.032	-0.018	-0.079
Residual Std. Error	1.028 (df = 96)	1.037 (df = 96)	0.987 (df = 157)	1.028 (df = 86)	1.060 (df = 96)	1.064 (df = 96)	1.030 (df = 157)	1.088 (df = 86)
F Statistic	1.139 (df = 5; 96)	0.807 (df = 5; 96)	1.274 (df = 5; 157)	1.049 (df = 15; 86)	0.506 (df = 5; 96)	0.372 (df = 5; 96)	0.436 (df = 5; 157)	0.505 (df = 15; 86)

Note: *p<0.1; **p<0.05; ***p<0.01

Table 4.14. Impact of the Big Five personality traits as self-stereotypes (relative and absolute differences and values for the host country) on dyadic PDR and PDC scores calculated using country dummies, team properties and individual characteristics of the respondents.

	Dependent variable:					
	PDR_raw_ALL				PDC_raw_ALL	
	(1)	(2)	(3)	(4)	(5)	(6)
openness_ss	0.012			0.055	0.004	
	(0.062)			(0.088)	(0.068)	
conscientiousness_ss	0.018			−0.001	0.040	
	(0.024)			(0.037)	(0.026)	
extraversion_ss	−0.003			−0.061	0.001	
	(0.051)			(0.072)	(0.056)	
agreeableness_ss	0.044			0.006	0.028	
	(0.030)			(0.045)	(0.033)	
neuroticism_ss	0.024			0.003	0.013	
	(0.037)			(0.059)	(0.041)	
openness_ss_abs		−0.041		−0.068		0.027
		(0.057)		(0.066)		(0.062)
conscientiousness_ss_abs		0.009		0.010		−0.009
		(0.029)		(0.031)		(0.032)
extraversion_ss_abs		−0.060		−0.038		−0.109**
		(0.042)		(0.050)		(0.046)
agreeableness_ss_abs		0.019		0.028		0.005
		(0.038)		(0.040)		(0.041)
neuroticism_ss_abs		0.061		0.069		0.046
		(0.046)		(0.058)		(0.050)
openness_ss_host			−0.010	−0.084		
			(0.068)	(0.126)		
conscientiousness_ss_host			0.040	0.038		
			(0.027)	(0.057)		
extraversion_ss_host			0.047	0.117		
			(0.057)	(0.101)		
agreeableness_ss_host			0.087**	0.076		
			(0.034)	(0.067)		
neuroticism_ss_host			0.102**	0.042		
			(0.041)	(0.093)		
Constant	0.005	0.119	−13.208***	−9.385	−0.102	0.170
	(0.093)	(0.242)	(4.511)	(10.050)	(0.103)	(0.264)
Observations	112	112	173	112	112	112
R^2	0.049	0.067	0.069	0.143	0.049	0.083
Adjusted R^2	0.004	0.023	0.041	0.009	0.004	0.040
Residual Std. Error	0.988 (df = 106)	0.979 (df = 106)	0.982 (df = 167)	0.986 (df = 96)	1.087 (df = 106)	1.068 (df = 106)
F Statistic	1.096 (df = 5; 106)	1.521 (df = 5; 106)	2.481** (df = 5; 167)	1.070 (df = 15; 96)	1.094 (df = 5; 106)	1.918* (df = 5; 106)
Note:						*p<0.1; **p<0.05; ***p<0.01

Table 4.15. Impact of The Good Country dimensions (relative and absolute differences in rank and rank of the host country) on dyadic PDR and PDC scores calculated using country dummies, team properties and individual characteristics of the respondents

	Dependent variable:					
	PDR_raw_ALL			PDC_raw_ALL		
	(1)	(2)	(3)	(4)	(5)	(6)
science_and_technology	−0.001			0.001		
	(0.002)			(0.002)		
culture	−0.004			−0.007***		
	(0.003)			(0.003)		
international_peace_and_security	0.002			−0.001		
	(0.002)			(0.002)		
world_order	−0.002			−0.002		
	(0.002)			(0.002)		
planet_and_climate	−0.001			0.0002		
	(0.002)			(0.002)		
prosperity_and_equality	−0.001			−0.002		
	(0.001)			(0.001)		
health_and_wellbeing	0.002			−0.001		
	(0.002)			(0.002)		
overall_rank	0.004			0.010		
	(0.007)			(0.007)		
science_and_technology_abs		−0.003			−0.001	
		(0.002)			(0.002)	
culture_abs		−0.003*			−0.002	
		(0.001)			(0.001)	
international_peace_and_security_abs		0.001			−0.002	
		(0.002)			(0.002)	
world_order_abs		−0.0003			0.0001	
		(0.002)			(0.002)	
planet_and_climate_abs		0.001			−0.001	
		(0.002)			(0.002)	
prosperity_and_equality_abs		0.001			−0.002	
		(0.002)			(0.002)	
health_and_wellbeing_abs		−0.002			0.001	
		(0.002)			(0.002)	
overall_rank_abs		0.010***			0.006*	
		(0.003)			(0.003)	
science_and_technology_host			0.002			0.005
			(0.003)			(0.003)
culture_host			0.004			−0.006
			(0.004)			(0.004)
international_peace_and_security_host			0.005**			0.0003
			(0.003)			(0.003)
world_order_host			−0.0003			−0.0001
			(0.003)			(0.003)
planet_and_climate_host			0.002			0.001
			(0.002)			(0.002)
prosperity_and_equality_host			0.001			−0.002
			(0.002)			(0.002)
health_and_wellbeing_host			0.005**			−0.002
			(0.003)			(0.003)
overall_rank_host			−0.017			−0.0001
			(0.011)			(0.011)
Constant	−0.037	−0.304*	−0.074	−0.006	0.026	0.433
	(0.064)	(0.165)	(0.325)	(0.064)	(0.169)	(0.325)
Observations	241	241	250	241	241	250
R^2	0.060	0.087	0.042	0.047	0.044	0.047
Adjusted R^2	0.027	0.055	0.010	0.014	0.011	0.016
Residual Std. Error	0.990 (df = 232)	0.975 (df = 232)	0.995 (df = 241)	1.000 (df = 232)	1.001 (df = 232)	0.996 (df = 241)
F Statistic	1.839* (df = 8; 232)	2.763*** (df = 8; 232)	1.305 (df = 8; 241)	1.425 (df = 8; 232)	1.340 (df = 8; 232)	1.495 (df = 8; 241)

Note: *p<0.1; **p<0.05; ***p<0.01

Table 4.16. Impact of the World Happiness Report dimensions (relative and absolute differences and values for the host country) on dyadic PDR and PDC scores calculated using country dummies, team properties and individual characteristics of the respondents

	Dependent variable:							
	PDR_raw_ALL				PDC_raw_ALL			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
happiness	0.020			0.055	0.104			0.124
	(0.097)			(0.154)	(0.096)			(0.151)
social_support	−1.703**			−2.638**	−0.961			−0.940
	(0.791)			(1.137)	(0.775)			(1.120)
healthy_life_expectancy	0.002			0.022	0.003			0.012
	(0.015)			(0.021)	(0.015)			(0.021)
freedom_life_choices	−0.101			0.465	0.311			0.827
	(0.641)			(0.931)	(0.628)			(0.917)
corruption_perception	0.167			1.072	0.710			0.743
	(0.592)			(0.876)	(0.580)			(0.863)
happiness_laugh_enjoyment	1.066			1.550	−0.499			−0.985
	(1.103)			(1.522)	(1.080)			(1.499)
worry_sadness_anger	0.917			1.367	0.184			1.511
	(1.201)			(1.644)	(1.176)			(1.619)
happiness_abs		−0.103				−0.012		
		(0.101)				(0.099)		
social_support_abs		0.541				0.374		
		(0.766)				(0.750)		
healthy_life_expectancy_abs		0.028*				0.023		
		(0.015)				(0.015)		
freedom_life_choices_abs		1.392*				0.678		
		(0.765)				(0.749)		
corruption_perception_abs		1.164				0.182		
		(0.719)				(0.704)		
happiness_laugh_enjoyment_abs		−0.401				−0.763		
		(1.330)				(1.302)		
worry_sadness_anger_abs		−2.321				−2.071		
		(1.906)				(1.867)		
happiness_host			0.057	−0.071			0.021	−0.038
			(0.141)	(0.237)			(0.144)	(0.234)
social_support_host			−1.161	1.869			−0.822	−0.041
			(1.080)	(1.629)			(1.102)	(1.605)
healthy_life_expectancy_host			−0.014	−0.040			−0.010	−0.019
			(0.020)	(0.029)			(0.020)	(0.028)
freedom_life_choices_host			−0.451	−1.132			−0.058	−1.032
			(0.886)	(1.349)			(0.904)	(1.329)
corruption_perception_host			−0.321	−1.810			0.732	−0.065
			(0.814)	(1.288)			(0.831)	(1.269)
happiness_laugh_enjoyment_host			0.287	−0.968			0.715	0.972
			(1.430)	(2.093)			(1.459)	(2.062)
worry_sadness_anger_host			0.989	−0.900			−0.853	−2.654
			(1.557)	(2.241)			(1.589)	(2.208)
Constant	0.023	−0.286	1.658	4.723**	0.033	−0.072	0.392	2.302
	(0.071)	(0.195)	(1.249)	(1.985)	(0.070)	(0.191)	(1.274)	(1.955)
Observations	203	203	230	203	203	203	230	203
R^2	0.059	0.073	0.037	0.090	0.017	0.033	0.024	0.039
Adjusted R^2	0.025	0.040	0.007	0.022	-0.018	-0.002	-0.007	-0.032
Residual Std. Error	1.013 (df = 195)	1.006 (df = 195)	1.014 (df = 222)	1.015 (df = 188)	0.993 (df = 195)	0.985 (df = 195)	1.035 (df = 222)	1.000 (df = 188)
F Statistic	1.754* (df = 7; 195)	2.199** (df = 7; 195)	1.235 (df = 7; 222)	1.329 (df = 14; 188)	0.493 (df = 7; 195)	0.939 (df = 7; 195)	0.777 (df = 7; 222)	0.548 (df = 14; 188)

Note: *p<0.1; **p<0.05; ***p<0.01

Chapter 5

The impact of psychic distance on foreign direct investment

DO different types of distance ((1) cultural distance and psychic distance, (2) as PDR and (3) as PDC) have different consequences on MNE activity? I investigate this in the context of outward bilateral FDI, as proxy for MNE location choice. I examine the extent to which my psychic distance scores (PDR-psychic distance as perceived differences, and PDC-psychic distance as perceived difficulties) aggregated at the country level explain patterns of outward foreign direct investment using a panel data estimation technique on the gravity model (Anderson, 1979a; Leibenstein, 1966). I find that psychic distance as perceived differences deters FDI while psychic distance as perceived difficulties encourages FDI. These results suggest that the impact of psychic distance on FDI is complex and not necessarily negative, much like the effect of institutional hazards on foreign MNE activity (Slangen and Beugelsdijk, 2010).

5.1 Introduction

So far in this dissertation I have shown that cultural distance and psychic distance are different phenomena. The lexicographic analysis on 47 years of the *Journal of International Business Studies* in Chapter 2 details the differences between psychic and cultural distance in terms of how they are defined, what they are applied to, how it can be distinguished from other types of distance. In spite of long-lasting confusion regarding the two concepts (Dunning et al., 2007a; Gomes and Ramaswamy, 1999; Sethi et al., 2003; Simonin, 1999a,b; Townsend et al., 2009; Trabold, 2002), recent efforts to disentangle them, building on the original definition of psychic distance (Hakanson and Ambos, 2010; Hakanson et al., 2016; Prime et al., 2009; Sousa and Bradley, 2006, 2008; Stottinger and Schlegelmilch, 1998), have gained prominence. This second chapter argued that the differences between cultural distance and psychic distance are so large that they cannot be considered synonyms. The methodology developed in Chapter 3 produced country-level, dyadic psychic distance scores stemming from individual perceptions of differences (PDR) and difficulties (PDC), two different facets of the broader psychic distance construct characterized by a low correlation (0.35) at the individual level. In Chapter 4, a plethora of country-level antecedents of psychic distance were investigated: while a few were significant, it showed that only a small part of the variation in psychic distance is related to country-level variables.

From these first chapters, it becomes clear that psychic and cultural distance are theoretically different and cannot be considered as synonyms; Chapter 4 shows that cultural distance is not a significant predictor of perceived differences, and that psychic distance as perceived differences and psychic distance as perceived difficulties have different antecedents from one another, suggesting they are distinct dimensions of psychic distance. In Chapter 5 (this chapter), I am interested in investigating whether different types of distance (cultural distance or psychic distance, as PDR or as PDC) have different consequences on MNE activity. I investigate this in the context

of outward bilateral FDI (foreign direct investment).

In this chapter, FDI serves as the context to illustrate my main point; I merely use FDI as the setting in which to test which types of distance are most relevant for MNE activity. Since FDI represents the highest level of commitment in international trade, carrying the most risk (Habib and Zurawicki, 2002), it is assumed that the process leading to its decision is as thorough and rational as possible to convince all the echelons of decision-makers of the merits of such high-risk venture. FDI is a huge commitment, so decision makers can be expected to use thorough analytical procedures to make rational decisions and limit as much as possible individual biases. Therefore the impact of distances such as geographic, institutional, cultural, or economic rather than psychic distance on FDI has been the subject of extensive studies (characterized by a lack of consensus: positive and negative, significant and insignificant influences have been found; negative (Chang and Rhee, 2011; Erramilli, 1991; Flores and Aguilera, 2007; Gomes-Casseres, 1990; Kogut and Singh, 1988; Li and Guisinger, 1991; Loree and Guisinger, 1995; Sohn, 1994), positive (Brouthers and Lance, 2001; Erramilli et al., 1997; Padmanabhan and Cho, 1996; Schneider et al., 2010; Thomas and Grosse, 2001), not significant (Benito and Gripsrud, 1992a; Rose and Ito, 2008; Sullivan and Bauerschmidt, 1991). For an overview of cultural distance and FDI, I refer to Beugelsdijk et al. (2018b). Conversely, it is alleged that perceptions, based on incorrect or exaggerated facts or beliefs such as assumptions, stereotypes, half-truths or prejudices Hotho (2009), either have no play in this decision-making process or at least are kept under control.

Here I examine the extent to which my psychic distance scores (PDR-psychic distance as perceived differences, and PDC-psychic distance as perceived difficulties) aggregated at the country level explain patterns of outward foreign direct investment (FDI). Since psychic distance only *"exists in an individual's mind"* and is thus *"a highly subjective interpretation of reality"* (Sousa and Bradley, 2006, p.61), whereas FDI represents the highest level of commitment abroad, so the decision processes leading to it are believed to be thorough and objective, it has been hypothesized in

the previous literature that psychic distance could not possibly explain FDI patterns (Benito and Gripsrud, 1992a; Dow, 2000; Ellis, 2008). In Chapter 1 I argued that decision-making is an individual process, and as such subject to psychic distance. Since undertaking FDI or not (and where) is a decision, perceptions of differences and difficulties (Chapter 3) should play a role. The wealth of information available to decision-makers does not make it any easier for them neither to select what is relevant, reliable, or not, nor to process it effectively. Decision-makers are but humans and as such only have limited cognitive abilities (Simon, 1957). They cannot have perfect knowledge or understanding of business conditions in a foreign environment, and yet they have to make investment decisions. They base their decision-making process not only on what they know, but on what they think they know, i.e. what they hold to be true even if it is mostly based on perceptions (psychic distance).

To investigate whether different types of distance have different effects on MNE activity, I rely on a unique database comprised of thousands of individuals' perceptions of differences (PDR) and difficulties (PDC) related to working with foreign nationals, transformed in average perceptions occurring in country pairs (methodology developed in Chapter 3). 38 home countries and 38 host countries are represented in this database. To analyze this data, I apply a panel data estimation technique using the gravity model (Anderson, 1979a; Leibenstein, 1966) with outward FDI stock data for the years 2001-2012 as the dependent variable.

I find that psychic distance in the form of perceived differences has a significant negative impact on outward FDI stock even when controlled for all of the typical gravity model effects (Anderson and Wincoop, 2003; Feenstra et al., 2001; Frankel and Rose, 2002; Kleinert and Toubal, 2010; van Bergeijk and Brakman, 2010). These results suggest that perceived differences deter FDI. The dyadic psychic distance scores from Hakanson and Ambos (2010) also have a significant and negative effect on FDI and yield the same empirical results as my PDR scores. I also find that the effect of psychic distance in the form of perceived differences on FDI outstock does not become insignificant once cultural distance is added to the models. Unexpectedly, I find that psychic

distance in the form of perceived difficulties encourages rather than reduces FDI. I will discuss this in the concluding section.

The findings of this chapter show that (1) the dyadic psychic distance measures I developed in Chapter 3 are empirically relevant to explain FDI, (2) psychic distance has clearly separable dimensions with different variables (in this thesis I distinguish between perceived differences and perceived difficulties), and (3) psychic and cultural distance are independently related to FDI. In line with what has been argued elsewhere (Hakanson and Ambos, 2010; Hakanson et al., 2016; Prime et al., 2009; Sousa and Bradley, 2006, 2008; Stottinger and Schlegelmilch, 1998), I conclude that psychic and cultural distance are two different constructs and should not be considered synonyms.

This chapter is organized as follows: the first section argues why cultural distance (CD), psychic distance as perceived differences (PDR) and psychic distance as perceived difficulties (PDC) are different, briefly presents the setting in which my analyses occur (FDI) as well as my approach in this chapter; the following section describes the data and describes the methodology; the penultimate section presents the empirical findings while the last one discusses the relevance and appeal of the results, recognizes limitations and concludes.

5.2 Theoretical background

When venturing abroad, investors are faced with additional costs compared with doing business in their home country. The fact that they are foreigners hinders their legitimacy in the eyes of the local population. This liability of foreignness (Zaheer, 1995) puts them at a disadvantage, compared with locals to identify and evaluate relevant business opportunities and establish local contacts (for suppliers, distributors, for instance); conducting business operations overseas also means additional coordination, communication and control costs, having to learn local regulations (in terms of job safety, environmental protection, new product approval), managing exchange rate exposure, and proficiency in (at least) two sets of tax and

reporting requirements (Dewenter, 1995a,b,c).

Doing business abroad takes generally three different forms: exports, licensing/franchising, and foreign direct investment (FDI), "the most serious and risky commitment among the international business activities" (Habib and Zurawicki, 2002, p.295). In this chapter I follow the definition of the UNCTAD: *"an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate). FDI implies that the investor exerts a significant degree of influence on the management of the enterprise resident in the other economy. Such investment involves both the initial transaction between the two entities and all subsequent transactions between them and among foreign affiliates, both incorporated and unincorporated"* (UNCTAD, 2007, p.245).

FDI encompasses greenfield, wholly owned subsidiaries, strategic alliances with and acquisition of foreign firms. It provides the highest level of management control, allows a high flexibility in servicing international markets thanks to quick and direct feedback from the market, but is also the most expensive and riskiest mode of entry. FDI is sought after with different goals in mind: market-seeking motives (to gain access to new opportunities, follow customers and/or compete with key rivals), resource- or asset- seeking motives (to gain access to raw materials, knowledge, technological or managerial know-how), and efficiency-seeking motives (take advantage of lower labor costs in the host country, reduce transportation costs by locating production near customers, avoid trade barriers) (Dunning and Lundan, 2008, p.245). Firms invest in host countries offering comparative advantages but which also inherently carry specific risks; since FDI means that firms have a permanent physical presence in host markets, they are directly vulnerable to country risk and local governments interventions (inflation, recessions, expropriations, to name a few). Hence even complete ownership is no guarantee of total control.

5.2.1 Antecedents of FDI

Host market characteristics. The internationalization processes of the MNEs are driven by both the attractiveness of the host markets, and by perceived distance towards this market. Finding out what encourages or deters FDI specifically has been the topic of many studies. The stream of research focusing on characteristics of the host market (regardless of the ones from the home market) is the one providing the most consistent results regarding the drivers of FDI. Higher equity modes (of which a prime example is FDI) are preferred for those host markets which are considered attractive (Erramilli et al., 1997), may it be in terms of their size (Agarwal and Ramaswami, 1992; Anderson and Gatignon, 1986; Davidson, 1980; Li and Guisinger, 1992; Mitra and Golder, 2008; Terpstra and Yu, 1988) or openness to foreign investments (Li and Guisinger, 1992), while the level of corruption mostly acts as a deterrent (Habib and Zurawicki, 2002).

Distances. While the popular press may be under the impression that globalization is erasing cultural differences [thus making the world " flat", Friedman (2005)] and virtually canceling physical boundaries (the so-called "death of distance"), the different concepts of distance (cultural, administrative, geographic, economic, psychic, institutional, linguistic, cognitive, etc.) have regularly been a very popular topic of research for the past four decades in international business (see Chapter 2), and virtually all studies based on the traditional gravity model of international trade in economics concur that distance still matters (Brun et al., 2005): *"Contrary to popular impression, the world is not getting dramatically smaller"* (Leamer and Levinsohn, 1995, p.1387–1388).

Even though some have argued that a greater distance can be beneficial (O'Grady and Lane, 1996), in general "the existing IB literature tends to apply a common 'less is better' principle to all dimensions of distance" (Beugelsdijk and Mudambi, 2013, p.418). The extent of differences in languages and religions (related to cultural distance), in industrial development (related to economic distance), legal systems, regulatory and trade regimes (related

to administrative distance), living inconveniences and travel time (related to geographic distance) have been found to have a negative impact on international exchanges in general (Berry et al., 2010; Castellani et al., 2013; Dow and Karunaratna, 2006; Dunning and Lundan, 2008; Evans and Mavondo, 2002; Ghemawat, 2001; Schotter and Beamish, 2013; Shenkar, 2001). The impact of geographic distance on FDI is generally hypothesized to be negative as well. Ample evidence confirms this (Balogun, 2009; Anderson and Wincoop, 2003; De Benedictis and Vicarelli, 2004; De Benedictis and Taglioni, 2011; Leamer and Levinsohn, 1995; ; Disdier and Head, 2008; Lawrence et al., 2008), even though there is heterogeneity in effects between sectors and over time (Coe et al., 2002; Frankel et al., 1996; Hakanson and Dow, 2012; Leamer and Levinsohn, 1995).

Psychic distance and FDI: lack of investigation. While psychic distance has been a *"commonly used – yet puzzling"* (Yildiz and Fey, 2016, p.831) concept in international business overall (see Chapter 2) for the past four decades, only a handful of studies have used it to investigate FDI patterns (Habib and Zurawicki, 2002). Psychic distance has been understudied as a predictor of the location of FDI activities. One of the few empirical works which feature psychic distance consider it as a moderator in the relationship between market size and FDI (Ellis, 2008). It has been argued to be a poor predictor of FDI activities (Benito and Gripsrud, 1992a; Ellis, 2008) and only influences the modes of entry which carry the lowest level of risk (Dow, 2000).

I contend that to study decision-making, the individual-level, subjective and perceptual nature of psychic distance is likely to be relevant. A reason to turn towards psychic distance to investigate FDI is that managers are only boundedly rational, and thus their decision-making process is likely to depend on their personal characteristics: as Hutzschenreuter et al. (2007, p.1064) put it: *"Since managers do not behave fully rationally, personal experiences or their international backgrounds might affect their decisions"*. This suggests that psychic distance plays a significant role in FDI in addition to objective distances.

Cultural distance and FDI: lack of consensus. Cultural distance is the most investigated type of distance overall in IB (see Chapter 2) and there is a strong assumption in the literature that it is a key determinant for FDI pattern, sequence and performance (Dow et al., 2016; Shenkar, 2001). While its impact on FDI has been extensively investigated, the empirical findings remain inconclusive (Tihanyi et al., 2005): some studies find a negative impact, others a positive one, while other a not significant one (see Beugelsdijk et al., 2018b, for an overview).

A larger cultural distance is traditionally associated with higher uncertainty and risk. Brannen and Peterson (2009), citing a KPMG study, state that *"83% of all cross-border M&As failed to produce any benefit for the shareholders and over 50% actually destroyed value;"* additionally, interviews with over 100 senior executives involved in 700 cross-border M&A deals within a 2-year period revealed that the single biggest perceived cause for failure was cultural differences. Studies have linked higher cultural distance with higher greenfield investments (Anderson and Gatignon, 1986; Chang and Rosenzweig, 2001; Kogut and Singh, 1988; Weitzel and Berns, 2006). Cultural distance has been shown to have a negative impact on FDI in a wide array of studies (Chang and Rhee, 2011; Erramilli, 1991; Flores and Aguilera, 2007; Gomes-Casseres, 1990; Kogut and Singh, 1988; Li and Guisinger, 1991, 1992; Loree and Guisinger, 1995; Sohn, 1994). Beugelsdijk et al. (2018b) find that cultural distance affects location choice, entry mode, and subsidiary performance. A higher cultural distance deters entry, leads to low risk entry modes, and reduces performance.

Similarly, the related concept of institutional distance (defined as "the difference/similarity between the regulatory, cognitive, and normative institutions of the two countries" Kostova and Zaheer, 1999, p.71) has also been a variable of choice in FDI studies. It has been shown to impede a firm's ability to absorb and transfer knowledge (Castellani et al., 2013; Eden and Miller, 2004) increasing even more the high risk inherently associated with FDI and thus discouraging from it. The corollary is that it can be argued that cultural and institutional proximity facilitate FDI. Cultural

proximity often means a common language (Globerman and Shapiro, 2003) which makes it easier to effectively communicate with the workforce and the potential customers alike (Baliga and Jaeger, 1984; Dunning, 1993; Habib and Zurawicki, 2002; Hofstede, 1983; Sethi et al., 2003). Institutional proximity means a greater ease at understanding and respecting normative and cognitive aspects as well as a more familiar environment regarding regulations in place in the host country (Dunning, 2009; Flores and Aguilera, 2007; Jackson and Deeg, 2008; Witt and Lewin, 2007) thus encouraging investments in such setting.

Conversely, ther studies found a counterintuitive positive impact of cultural distance and institutional distance on FDI (Brouthers and Lance, 2001; Erramilli et al., 1997; Padmanabhan and Cho, 1996; Schneider et al., 2010; Thomas and Grosse, 2001). The reasoning behind this finding is akin to the one as to why geographic distance encourages FDI, i.e. the greater need for face-to-face interactions so as to limit as much as possible misunderstandings and increase control over what is done in the subsidiary.

It has also been contended that cultural distance is not a relevant antecedent of FDI, neither to deter nor to encourage it. Some researches failed to find a statistically significant impact of cultural distance on FDI (Benito and Gripsrud, 1992a; Rose and Ito, 2008; Sullivan and Bauerschmidt, 1991).

5.2.2 CD, PDR and PDC are distinct

As mentioned in Chapter 2, the original definitions of psychic distance found in trade economics (Beckerman, 1956) and in international business (Johanson and Wiedersheim-Paul, 1975) highlighted its emphasis on individuals rather than countries and its role as a disruptor with an emphasis on its damaging consequences similar to other types of distance (cultural, geographic, economic, for instance) without being considered for a substitute for any of them. The distinction between the two started to be blurred with the first attempt to operationalize psychic distance (Kogut and Singh, 1988), marked by the use of Hofstede's (1980) four cultural dimensions, aggregated into an index in which all of them had the same coefficient,

symmetry is assumed, and the individual discarded. While the two concepts were conceptually conceived as distinct from one another, having to find a way to operationalize them for empirical investigation led to much confusion, as developed in Chapter 2.

In this dissertation I consider two different facets of psychic distance: perceived differences (PDR) and perceived difficulties (PDC). Here I investigate whether they have different consequences as well.

CD, PDR, PDC and FDI. So far I have argued (1) that cultural distance and psychic distance are different phenomena, and (2) that perceived differences and perceived difficulties are two distinct dimensions of psychic distance. They also have different antecedents (at the individual- and macro-level alike). If these concepts have different scopes and different antecedents, do they also have different consequences on MNE activity?

I conjecture that psychic distance is a significant predictor of FDI. Hence my first research question (RQ 5.1 Does psychic distance play a role in MNE activity?). Then, because cultural distance and psychic distance are different concepts (different definitions, different measures), they likely have different consequences on MNE activity as well, hence my second research question (RQ 5.2 Does psychic distance have different effects than cultural distance on MNE activity?). To summarize, this chapter addresses the following:

> **RQ5.1a:** *What is the impact of perceived differences on MNE activity?*
>
> **RQ5.1b:** *What is the impact of perceived difficulties on MNE activity?*
>
> **RQ5.2a:** *Does the impact of perceived differences on MNE activity remain significant when cultural distance is added to the model?*
>
> **RQ5.2b:** *Does the impact of perceived difficulties on MNE ac-*

tivity remain significant when cultural distance is added to the model?

5.3 Data and Method

In this chapter I apply the gravity model of trade (Anderson, 1979b; Tinbergen, 1962; Zwinkels and Beugelsdijk, 2010) to analyze the impact of psychic distance on FDI using the panel data estimation technique. FDI outstock is regressed onto cultural distance, and the dyadic psychic distance scores (PDR-psychic distance as perceived differences and PDC-psychic distance as perceived difficulties) calculated in Chapter 3.

5.3.1 Dependent variable

The dependent variable in this chapter is bilateral outward FDI stock. FDI stocks are preferred here to FDI flows because they represent the totality of the commitment of MNEs from one country into another while flows by definition only account for year-to-year variations; in addition, FDI stocks may be biased in the case of tax havens (Beugelsdijk et al., 2010). The European Union released in June 2015 a list of international tax havens comprising 30 countries [1]. None of these countries is present in the sample used in this chapter. The data was retrieved from the UNCTAD website (UNCTAD, 2017) and was available for the years 2001-2012, hence this is the scope of the empirical analyses in this chapter. Outward FDI stock data was logged to obtain a normal distribution.

5.3.2 Independent variables

Psychic distance. The key measure in this chapter is psychic distance aggregated at the country level, which means an average level of perceived

[1] These are: Andorra, Liechtenstein, Guernsey, Monaco, Mauritius, Liberia, Seychelles, Brunei, Hong Kong, Maldives, Cook Islands, Nauru, Niue, Marshall Islands, Vanuatu, Anguilla, Antigua and Barbuda, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Grenada, Montserrat, Panama, St Vincent and the Grenadines, St Kitts and Nevis, Turks and Caicos, US Virgin Islands. Source: http://www.eubusiness.com/news-eu/economy-politics.120n

differences (PDR) and of perceived difficulties (PDC) which exists in a home country towards a host country. Aggregating individual perceptions reflected in psychic distance scores provides insight into the average views of firms from the home country towards different host countries (Dow and Karunaratna, 2006; Hakanson and Ambos, 2010).

Individual-level ex ante psychic distance measures, essential to avoid hindsight bias, are very difficult to come by. As acknowledged in Dow and Karunaratna (2006, p.595), *"measures of a manager's perceptions of psychic distance immediately before a major international decision are difficult to obtain."* While not comprised of individuals holding managerial positions, I had access to such a study environment through the X-Culture project. The context is the following one. Participants worked in diverse teams of about seven over a period of eight weeks. Together they have to write a business plan for an MNE looking for business opportunities in a market in which it is not yet present. As often as possible, each team member comes from a different country. Such project is undergone in the context of an international business course (at the graduate or undergraduate level).

How the different dyadic psychic distance scores were calculated from the X-Culture database is extensively covered in Chapter 3 and will not be reproduced here. To obtain the initial psychic distance as differences (PDR) scores, participants replied to the question: *"Based on your experience and knowledge about cultures around the world, please rate the degree of difference among the national cultures of the following countries [present in your team]"* (the answers ranging from 1-identical, to 5-very different). To obtain the initial psychic distance as difficulties (PDC) scores, participants replied to the question: *"Based on your knowledge of the working styles, cultural, linguistic, economic and political differences, rate the degree of ease/difficulty of people from the following countries [present in your team] would experience when working together"* (the answers ranging from 1-very easy, to 5-very difficult).

As explained in Chapter 3, this database proves valuable for different

reasons. First, two critical facets of psychic distance are distinguished (PDR-psychic distance as perceived differences and PDC-psychic distance as perceived difficulties). Second, it allowed to control for team- and individual-level characteristics in calculations of dyadic psychic distance. The following team characteristics were included: age diversity, gender diversity, and number of countries present on the team; the personal characteristics of the respondents were their age, their gender, their cultural intelligence, and their international experience. The dyadic psychic distance scores used in this chapter were calculated based on the PDR and PDC scores each participant provided (ranked 1-5), (1) explained by the presence (1) or absence (0) of the focal country on the team (country dummies), (2) controlled for concrete objective aspects of diversity within the teams (age diversity: as the standard deviation of each team member's age; gender diversity: as the variance of each team member's gender, it ranges from 0 - perfectly homogeneous team, which means a team composed only of men or only women - to 0.5 - perfectly heterogeneous team, composed of an equal number of men and women; country diversity: the number of different countries of origin within each team) as well as (3) personal characteristics of the respondents (age, gender, cultural intelligence and international experience).

In the main analyses, the weighted[2] coefficients of PDR and PDC are used as independent variables in the regressions, while the impact of their raw coefficients on FDI outstock is assessed in robustness checks.

Cultural distance. In this chapter, cultural distance is added to some of the models to see whether the impact of psychic distance on FDI remains significant, and to see whether it has the same effect as psychic distance on FDI outstock. The measure of cultural distance that I include in the analyses uses data from the World Values Survey (WVS) and the European Values Study (EVS) to replicate Hofstede's dimensions scores (Beugelsdijk, Maseland, and van Hoorn, 2015). The measures of cultural distance stemming from the WVS and the EVS were available for a greater number of country pairs

[2]Weighted coefficient = coefficient / standard deviation, cf. Chapter 3

than ones calculated from Hofstede's data, thus increasing the reliability of my regressions. I used the Kogut and Singh (1988) formula to calculate cultural distance using the above data. Hence my main analysis is based on these updated cultural distance scores.

Following common practice (Chung et al., 2015; Kwon et al., 2016; Malhotra and Gaur, 2014; Mohr et al., 2016; Smale et al., 2015) the Kogut and Singh (1988) index on Hofstede's cultural dimension scores is used as robustness checks. In doing so I used the first four original Hofstede dimensions (Hofstede, 1980) (uncertainty avoidance, masculinity, power distance, individualism). Whenever I refer to "cultural distance" in the remainder of the analysis, it is based on the WVS data.

Control variables. In this chapter I want to reveal the impact of psychic distance (as PDR and PDC) and cultural distance on FDI once all the gravity model effects are controlled for. Gordillo et al. (2010) list different advantages to using gravity models of trade. First, the rationale behind them is highly intuitive yet displays great explanatory power. Second, a large body of scholarly work since the 1960s has grounded gravity models of trade both empirically and theoretically (Anderson, 1979b; Bergstrand, 1985; Deardorff, 1995; Helpman and Razin, 1987). Third, the data used to estimate gravity models of trade comes from reliable sources (World Bank, CEPII, etc.) and is available for multiple years. According to Leamer and Levinsohn (1995), cited in Ricart et al. (2004), gravity models of trade are *"some of the clearest and most robust empirical findings in economics."*

The gravity model describes (commercial, financial, equity, etc.) bilateral flows between different points of origin (home countries) and destination (host countries). Inspired by Newton's Law of Universal Gravitation, these flows depend on the size (usually measured in terms of GDP or population) of both countries forming the dyad (home and host country) and on the physical (or geographic) distance between them (Linnemann, 1966; Tinbergen, 1962; Wei, 2000). Large countries tend to attract more FDI and trade flows since they make economies of scale possible

for MNEs settling there (Cuervo-Cazurra, 2006). The effect of geographic distance on bilateral flows is consistently negative (Anderson, 2001; Balogun, 2009; De Benedictis and Vicarelli, 2004; De Benedictis and Taglioni, 2011; Disdier and Head, 2008; Leamer and Levinsohn, 1995; Lawrence et al., 2008; Castellani et al., 2013).

Size and distance are generally complemented by additional indicators reflecting the ease or difficulty to transport products and/or transfer information and knowledge (Blum and Goldfarb, 2006; Egger and Pfaffermayr, 2004; Head et al., 2009; Kleinert and Toubal, 2010; Portes and Rey, 2005) from one place to the next: whether there exists a common land border between them, whether they share the same language, whether one has colonized the other (or whether they shared the same colonizer) thus having similar administrative traditions, and whether trade agreements exist between them (Baier et al., 2014; Cuervo-Cazurra, 2006; Feenstra et al., 2001; Frankel and Rose, 2002; Rafael et al., 1998; Wei, 2000). The variables reflecting whether the countries are land-locked or islands are also sometimes added to gravity equation models of trade. However, given that my regressions include fixed effects (importer, exporter, and year, as is customary when using gravity models: Kohl, 2012), here they had to be excluded. In this chapter, I use (the log of the) GDP (in US dollars, for the years 2001-2012) as a measure of the size of each country, and geographic distance to proxy physical distance between the home and the host country. Geographic distances are measured as the (log of the) number of kilometers separating the countries' major cities (in most cases, the capital cities). Data related to geographic distance, GDP (in USD, for the years 2001-2012), and dummies for common language, common border and former colonies are derived from the CEPII website[3] (Mayer and Zignago, 2011).

Common language encourages FDI (Globerman and Shapiro, 2003) and trade (Filatotchev et al., 2007; Frankel and Rose, 2002; Lazear, 1999; Rauch, 1999). It facilitates communication with customers, business partners and employees alike (Harzing et al., 2011; Harzing and Pudelko, 2014; Luo and

[3]http://www.cepii.fr/CEPII/en/bdd_modele/bdd.asp

Shenkar, 2006; Peltokorpi and Vaara, 2012; Tenzer et al., 2014). Managing across cultures requires of managers the arduous task to communicate as efficiently as possible in a way which diminishes misunderstandings and misinterpretations, thus reducing hazards (Luo and Shenkar, 2006; Zaidman, 2001). This is easier when the home and the host countries share a common language (Ali, 1995; Rao and Hashimoto, 1996). It simplifies business exchanges and thus decreases transaction costs (Doh et al., 2009). A common border between home and host countries means that transporting goods and communication links are easier, which means increased chances to trade and embark on FDI (Campbell et al., 2012; Cuervo-Cazurra, 2008; Cuervo-Cazurra and Genc, 2008). Frankel and Rose (2002) showed that colonial ties are a strong predictor of economic activity between two countries. The different dummies for common language, common border and colonial ties take the value 1 if at least one of the official languages of the host country is the same as the home country, if the two countries forming the country pair share a common land border, and if they share(d) colonial ties (Dow and Karunaratna, 2006; Srivastava and Green, 1986), 0 otherwise.

Data on the existence and strength of economic integration agreements is derived from the Economic Integration Agreements database (Bergstrand, 2015). Most studies rely on binary data (1-presence or 0-absence) to account for economic integration agreements. The database Bergstrand contributed to develop uses an ordinal index (0-6)[4] and thus offers a much more accurate estimation of the reality of economic integration agreements. Data for bilateral trade (2001-2012)[5] was retrieved from the CEPII database. I control for trade to make sure that what I capture is indeed the impact on FDI and not on another bilateral flow. Given that most observations in this database report imports and not exports (429 765 vs 20 117 respectively), import data was transformed into export data to be subsequently included in the statistical analyses: if France imports $5m of products and services from

[4] 0: no existing economic integration agreement; 1: one-way preferential trade agreement; 2: two-way preferential trade agreement; 3: free trade agreement; 4: customs union; 5: common market; 6: economic union (source: http://kellogg.nd.edu/faculty/fellows/bergstrand.shtml)

[5] http://www.cepii.fr/CEPII/en/bdd_modele/download.asp?id=32

Poland, it is equivalent to say that Poland exports $5m to France, so for imports FRA-POL=$5m and for exports POL-FRA=$5m. FDI stocks are logged and so is trade data.

Diagnostics. I calculated VIFs (variance inflation factors) for each regression coefficient to check for multicollinearity. The ones for the GDP variables (log of the GDP of the home country, log of the GDP of the host country) were consistently high (in most models around 115). This is due to the fact that home and host countries were included as fixed effects in the regressions, and introduced as dummies specifically to run the VIFs, which produces inflated VIFs scores without necessarily introducing multicollinearity. Besides, high VIFs do not affect any of the independent variables, whose condition indices were all below 15 (Belsley et al., 1980). Hence multicollinearity is not a concern here.

Regressions: gravity model equations. I estimate several gravity model equations, with the different measures of distance (cultural distance, psychic distance as perceived differences, psychic distance as perceived difficulties) added, over a period of 12 years (2001-2012). As prescribed in van Hoorn and Maseland (2016), several home countries and several host countries are included in the analyses. While 38 home countries and 38 host countries are represented in the database for psychic distance measures, the matrix is not complete: for example, psychic distance scores from the participants from Ireland (i.e., Ireland as a home country) are only available for three host countries (Colombia, Ukraine, the United States) and not 37 if the matrix were complete. The first model of the analyses (i.e., the benchmark model) does not include measures of psychic distance on purpose, only variables for which a much larger number of observations was available (hence N = 47 106 for this one, but drops to N < 1700 when psychic distance measures (PDR and PDC) are included to the models. This analysis is intended as a horse-race between PDR, PDC, and CD.

Hausman specification tests indicate that the fixed effects model should be favored over the random effects model (Hausman, 1978; Hutzchenreuter

et al., 2014). One key advantage of the panel nature of the data is that it allows to control for country-specific and time-invariant unobserved factors which are likely to influence outward FDI using fixed effects for both the home country and the host country. Following prior research (Chung, 2001; Tong et al., 2008), the empirical tests employ a fixed period-effect to account for time-specific data trends and country fixed effects to account for unobserved heterogeneity such as the effects of macroeconomic factors.

5.4 Results

Table 5.1 shows the univariate statistics and Table 5.2 displays the correlation matrix. Consistent with previous literature (Anderson and Wincoop, 2003; Hanson and Xiang, 2004; Nocke and Yeaple, 2008), FDI is negatively correlated with geographic distance (-0.14) and positively correlated with the GDP of the home (0.42) and of the host country (0.25).

Table 5.1. Univariate statistics

variable	Min	Med	Mean	Max	Std.dev	Skew	Kurt
(1) FDI_OUTSTOCK	-10.317	2.263	3.084	13.377	3.326	0.571	-0.629
(2) PDR_w_ALL	-2.420	0.013	0.015	3.700	1.021	0.162	-0.106
(3) PDC_w_ALL	-3.280	-0.297	-0.208	2.917	1.123	0.105	-0.386
(4) PSY_DIST_HAKANSON_AMBOS	6.000	48.500	48.515	93.000	21.228	0.050	-0.960
(5) CULTURAL_DISTANCE_WVS_ALT	0.142	2.150	2.241	5.622	0.997	0.442	-0.148
(6) GEO_DISTANCE	1.299	8.928	8.762	9.900	0.772	-1.338	2.805
(7) COMMON_LANGUAGE	0.000	0.000	0.145	1.000	0.352	2.015	2.062
(8) COMMON_BORDER	0.000	0.000	0.015	1.000	0.123	7.893	60.303
(9) FORMER_COLONY	0.000	0.000	0.011	1.000	0.105	9.297	84.440
(10) GDP_origin	16.031	23.108	23.295	30.001	2.442	0.076	-0.352
(11) GDP_destination	16.031	23.190	23.417	30.001	2.350	0.146	-0.391
(12) ECONOMIC_INTEGRATION_AGREEMENTS	0.000	0.000	0.488	6.000	1.103	2.740	7.721
(13) TRADE	0.000	11.966	10.062	26.372	7.347	-0.270	-1.346

Table 5.2. Bivariate statistics

variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) FDI_OUTSTOCK												
(2) PDR_w_ALL	-0.01											
(3) PDC_w_ALL	-0.03	0.41***										
(4) PSY_DIST_HAKANSON_AMBOS	-0.39***	0.07*	0.12***									
(5) CULTURAL_DISTANCE_WVS_ALT	-0.11***	-0.06***	0.08***	0.44***								
(6) GEO_DISTANCE	-0.14***	-0.03	-0.07***	0.74***	0.27***							
(7) COMMON_LANGUAGE	0.10***	-0.03	0.10***	-0.27***	-0.14***	-0.10***						
(8) COMMON_BORDER	0.13***	-0.06***	-0.05**	-0.40***	-0.18***	-0.34***	0.11***					
(9) FORMER_COLONY	0.15***	-0.02	-0.05**	-0.14***	-0.04***	-0.06***	0.13***	0.09***				
(10) GDP_origin	0.42***	-0.06***	-0.15***	0.04***	0.05***	-0.07***	-0.05***	0.04***	0.08***			
(11) GDP_destination	0.25***	-0.01	-0.01	0.00	0.06***	-0.06***	-0.05***	0.04***	0.09***	0.01***		
(12) ECONOMIC_INTEGRATION_AGREEMENTS	0.23***	-0.06**	-0.04*	-0.67***	-0.11***	-0.51***	0.10***	0.25***	0.08***	0.10***	0.24***	
(13) TRADE	0.45***	-0.01	-0.08***	-0.41***	0.01**	-0.26***	0.04***	0.13***	0.12***	0.43***	0.53***	0.34***

The design is based on gravity model trade equations. Table 5.3 presents the results of a set of panel regressions with bilateral FDI outstock as the dependent variable with a set of gravity model equation control variables controlled for the level of trade, to highlight the impact of cultural distance and psychic distance measures (PDR and PDC).

In Table 5.3, Model 1 is the benchmark model containing all of the control variables usually included in gravity equations. Model 2 contains the exact same variables as model 1, but on a more limited sample (i.e. only on country-pairs-years available for my psychic distance scores as well), hence the drop in the number of observations from 47,106 to 1,611. Models 3-6 build on this benchmark model by adding the independent variables of interest in this chapter: psychic distance as perceived differences, psychic distance as perceived difficulties, and cultural distance. Models 3 to 5 add measures of psychic distance (PDR in Model 3, PDC in Model 4, both PDR and PDC in Model 5) to the benchmark model displayed in the second column. Model 6 adds cultural distance, calculated using scores from the World Values Survey and the European Values Study (Beugelsdijk et al., 2015).

The results from Table 5.3 show that psychic distance as perceived differences has a consistently significant and negative impact on FDI outward stock (beta = -0.065, p = 0.30, standard error = 0.063 in Model 3; beta = -0.22, p = 0.0021, standard error = 0.071 in Model 5; and beta = -0.20, p = 0.0075, standard error = 0.074 in Model 6) while psychic distance as perceived difficulties has a consistently significant and positive impact on FDI outward stock (beta = 0.20, p = 0.00025, standard error = 0.055 in Model 4; beta = 0.29, p = 0.0000031, standard error = 0.062 in Model 5; and beta = 0.30, p = 0.0000024, standard error = 0.063 in Model 6). Cultural distance, like psychic distance as perceived differences, has a significant and negative impact on FDI outward stock (beta = -0.32, p = 0.0094, standard error = 0.12 in Model 6). It is important to highlight that both PDR and PDC remain highly significant when they are in the same regression (Models 5 and 6) and that

adding cultural distance does not make PDR and PDC less significant (Model 6). This suggests that they are three distinct constructs which all have an impact on FDI outward stock.

5.4.1 Robustness checks

Alternative measures of psychic distance. One should be careful when interpreting these results since the number of observations is relatively low ($N < 1700$ for Models 2-6). FDI and trade data, as well as WVS-EVS scores on which the cultural distance variables are calculated, were not always all available for the country pairs for which bilateral psychic distance scores were calculated in Chapter 3, resulting in a substantial number of missing observations removed through listwise deletion. They were available to a much greater extent for the bilateral psychic distance scores from the Hakanson and Ambos (2010) paper. Therefore, for comparison and robustness purposes, psychic distance scores from Hakanson and Ambos (2010) were added. It increased the number of observations threefold. Their definition of psychic distance (*"the subjectively perceived distance to a given foreign country"*, p. 196) is in line with the one guiding this dissertation, as well as several scholars (Dow, 2000; Dow and Karunaratna, 2006; Sousa and Bradley, 2005; Stottinger and Schlegelmilch, 1998). The sampled population is different (*"academically trained managers mastering the English language and with four or more years of business experience"* (Hakanson and Ambos, 2010, p.200) vs. students), which actually addresses one of the limitations mentioned by the authors: *"the dependent variable measures the perceptions of managers and is not necessarily representative for the entire populations of the countries surveyed. […] Our results may say little about the perceptions of managers who do not master English at all"* (Hakanson and Ambos, 2010). The population sampled in X-Culture is younger (average age: 23.00 vs 36.87), and it should be noted that women (52.07% vs 28%) as well as individuals who are proficient in English to varying degrees are more represented. The results reported in this dissertation are also not exclusively about the richest countries (Hakanson and Ambos surveyed

participants in the 25 largest economies worldwide[6]) but include countries which are classified as low-income economies (e.g., Ghana) to high income economies (e.g., the USA). In this dissertation as well as in their paper, psychic distance remains treated as based on individual perceptions and subsequently aggregated at the country level. The respondents assessed the extent to which they perceive each of the other 24 countries (they did not rate their home country) to be close or far away in terms of psychic distance (defined in the questionnaire they received as the *"sum of factors (cultural or language differences, geographical distance, etc.) that affect the flow and interpretation of information to and from a foreign country"*, thus drawing heavily from the seminal definition by Johanson and Vahlne (1977). They surveyed more than 1400 respondents, yielding 600 country pairs.

Table 5.4 shows the results of my first robustness test using Hakanson and Ambos data. For comparability I copy the benchmark model from Table 5.3 (Model 2 in 5.3) as Model 1 in Table 5.4. Model 2 in Table 5.4 is my first robustness test and shows that the alternative measure of psychic distance (i.e., the scores from Hakanson and Ambos, 2010) has a negative and significant relationship with FDI outward stock: beta = -0.036, p = 0.000000000000000000000005, standard error = 0.0035 in Model 2; beta = -0.027, p = 0.0000000015, standard error = 0.0045 in Model 3; and beta = -0.045, p = 0.00000000000000000000000000000016, standard error = 0.0039 in Model 4). This finding is in line with my negative and significant result for PDR (see Table 5.3). Adding cultural distance to Model 2 in Table 5.4 does not change the finding on Hakanson and Ambos' measure of psychic distance (as shown in Models 3 and 4). The fact that adding cultural distance does not change the effect of psychic distance on FDI corroborates the finding in Table 5.3.

[6]Measured by GDP in 2001; the list includes: Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Denmark, France, Germany, India, Italy, Japan, Mexico, the Netherlands, Norway, Poland, Russia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the USA.

Alternative measures for the size of the countries. Alternative measures of the size of each country include the GDP expressed in purchasing power parity or international dollars (Bergstrand, 1989; Kohl, 2012) to which is sometimes added the number of inhabitants in each country (Anderson, 1979a; Cuervo-Cazurra, 2008). As a robustness check I substituted these measures to the one I mentioned earlier. My main results do not change (analyses available upon request).

Alternative considerations for the large number of 0s in FDI outstock. There were a large number of 0s in my database, which led me to test different options (Linders and de Groot, 2006). I checked three different scenarios: (1) the missing observations were not replaced by 0 (0s and NAs remain as such in the database); (2) I replaced the 0s by a small number; and (3) I ran a Heckman two-step procedure (described afterwards). While some coefficients of control variables become non-significant, my results remain overall robust no matter which scenario is pursued.

To test for selection bias I followed the procedure suggested by Heckman (1979). The first step is the selection equation, a probit model in which the dependent variable (FDI outstock) is a dummy variable (1 if there is FDI outstock coming from the home to the host country, 0 otherwise). This first step serves to calculate the inverse Mills ratio which is then used in the second step to control for selection bias. The second step is the estimation regression equation: for the home countries engaging in FDI with the host countries in the different country pairs, the extent of their investment is studied in a linear regression. It is important to specify the selection equation so that at least one variable which has no direct effect on the dependent variable determines selection, so that collinearity problems are avoided in the second stage of the Heckman procedure (Soderbom, 2009). Thus, I used Common language as the exclusionary variable in the first stage since it can be considered that having a common language matters more for the decision to invest in that country or not than for how much to invest. Besides, preliminary analyses showed that this variable is highly significant in the first stage of the Heckman procedure but

is not significant in the second one. The results table summarizing the main analysis once the variable Common language has been removed is available upon request. If the inverse Mills ratio is not significant, it means there is no selection bias and that a one-step procedure is sufficiently reliable; it the inverse Mills ratio is significant, it means there is a selection bias and that in this case the Heckman two-step procedure is better suited. The most complete model (model 6 in Table 5.3) comprises both measures of psychic distance (PDR and PDC) as well as a measure of cultural distance. The inverse Mills ratio for this model is not significant, suggesting there is no selection bias.

5.5 Discussion and Conclusion

PDR has a significant and negative impact on FDI outstock, suggesting that perceived differences deter FDI. This is consistent with what the literature suggests for other types of distance (Beugelsdijk and Mudambi, 2013; Coe et al., 2002; Frankel et al., 1996; Leamer and Levinsohn, 1995). Conversely, PDC has a significant and positive impact on FDI outstock, suggesting that perceived difficulties encourage FDI. This constitutes a counterintuitive and interesting finding.

As far as my first research question is concerned (RQ 5.1 Does psychic distance explain FDI patterns?), these results show that indeed, psychic distance (as perceived differences and as perceived difficulties) play a significant role in explaining FDI outstock, the variable chosen here to assess the extent of MNE international activity occurring between home and host countries. Psychic distance as perceived differences and psychic distance as perceived difficulties have distinct effects: while perceived differences deter FDI, perceived difficulties encourage it. Cultural distance has a significant and negative effect on FDI outstock (beta = -0.32, p = 0.0094, standard error = 0.12 in model 6 in Table 5.3). More importantly, the effect of PDR and PDC virtually does not change once cultural distance is added to the regressions.

PDR and PDC have opposite effects on MNE activity. PDR and PDC

appear different from one another since they remain significant even when both included in regressions, and continue to be so even with the inclusion of cultural distance. This suggests that psychic distance as differences, psychic distance as difficulties and cultural distance are all distinct concepts.

As far as my second research question is concerned (RQ 5.2 Does psychic distance have different effects than cultural distance on FDI?), these results suggest that cultural distance has effects on FDI similar to the effect of PDR (negative impact on FDI outward stock) but distinct from PDC.

In this chapter I investigated the impact of psychic distance (PDR and PDC) and cultural distance scores on FDI, proxy for MNE activity, in a horse-race inspired analysis to see which one was driving the outcome variable the most. I find that while PDR and cultural distance both have separate, negative impacts on FDI outstock, PDC has qualitatively different effects: it affects FDI outstock positively, a result which remains significant even when cultural distance is added to the model. This result contributes to the idea that PDC is a unique dimension of distance.

While the findings show the importance of psychic distance for FDI, the analysis clearly suggests that different facets of this construct have different effects: perceived differences deter while perceived difficulties encourage FDI outstock. While the former was expected since in line with previous research on other types of distance (Beugelsdijk and Mudambi, 2013; Coe et al., 2002; Frankel et al., 1996; Leamer and Levinsohn, 1995), the latter constitutes a thought-provoking take on the relationship between the perception of diversity and international investment. This finding raises new and interesting questions about the drivers of MNE activity, challenging the "less is better" approach usually associated with the different types of distance (Beugelsdijk and Mudambi, 2013), and the concept of psychic distance itself.

Differences, unlike difficulties, can be considered as fixed, externally imposed constraints. Firms will not be able to change China's business culture within a few years, for example, to make it more akin to the American one. That would require profound changes in China's infrastructures, education and

legal systems, not to mention people's cognitions and how they see the world (in terms of individualism, freedom of speech, access to information, etc.). Empirical analyses have shown that while the scores of each country on the different Hofstede dimensions slightly vary over time, the differences between countries remain virtually the same (Beugelsdijk et al., 2015). Differences can be understood and responded to; not changed. They define the structural attractiveness of a location, because they determine the fit with the firm's way of doing business. As differences are a given to the firm, the main response of organizations is likely to be adapt their extent of involvement depending on the degree of differences. The amount of perceived difficulties, by contrast, is less of an external constraint and more something manageable by firms. Difficulties are about short-term obstacles that may be overcome, while not affecting the structural attractiveness of a location. Difficulties associated with doing business abroad can be overcome through learning and time, and investment in bridging mechanisms. Because difficulties are perceived as manageable and potentially decreasing over time thanks to experience and control, it is seen as tempting to resort to control-intensive modes of entry for host countries towards which a large PDC is perceived.

A tentative explanation of these counter-intuitive finding is the following: increasingly intense competition (Murray et al., 2007; Oviatt and Mcdougall, 1995) has led many firms to do business in virtually every part of the world, having to be present in markets which are not necessarily their first or safest choice. They may also opt to be in those markets for reputation purposes (having the image of being a global brand, being present in the biggest cities in the world), to send a strong message to both their customers base and their competitors. Since MNEs are pressured to be in markets which may carry a high risk, they are likely to opt for FDI, which provides the highest level of control in the hope that the uncertainty associated with such investment will be reduced, and thus their chances of success and survival are increased. What is more, one may expect them to devote more resources to locations perceived as difficult, precisely because more investment is required to address those difficulties.

Following this line of reasoning, this may explain why perceived difficulties encourage rather than deter FDI. There is this entrenched belief that difficulties can be overcome by dedicating more resources (time, effort, money) to the venture, providing more control, thus opting for high levels of investment commitment. This illusion of control may stem from overconfidence on behalf of decision-makers (Brown and Kobayashi, 2003; Duhaime and Schwenk, 1985; Hahn et al., 2014; Li and Tang, 2013). Another explanation is that, once it has been decided to go to a specific location, the only thing left to do to manage difficulties is to dedicate more resources to the venture, thus increasing the total amount of FDI.

5.5.1 Contributions

The contributions of this chapter are threefold. First, the dyadic psychic distance scores calculated in Chapter 3 seem useful indicators of perceived distance. Second, I offer further evidence that psychic distance is actually a multi-faceted concept. Previous chapters already showed that PDR and PDC are lowly correlated (Chapter 3) and have different antecedents (Chapter 4); the results of this chapter demonstrate that they also have opposite effects on MNE international activity, confirming they are indeed distinct. Third, psychic distance has an impact on FDI. Part of the variance stems from perceptions, and not only from objective differences or classic trade variables.

Using panel data in the context of the gravity equation model of trade, I show that PDR and PDC both have a significant effect on FDI (negative for PDR, positive for PDC), and PDR yields the same results as the psychic distance scores from the Hakanson and Ambos (2010) study. Also, cultural distance has a significant and negative impact on FDI, a result in line with Benito and Gripsrud (1992b), Rose and Ito (2008), and Sullivan and Bauerschmidt (1991), for instance. I argued earlier that psychic distance and cultural distance should be considered as different constructs; this chapter also shows that they have distinct consequences on a same dependent variable, providing further empirical evidence that they are distinct.

5.5.2 Limitations

In addition to the limitations mentioned in Chapters 3 and 4, this study has its own limitations. While longitudinal data was available for all of my dependent and control variables, it was not for my independent variables. Therefore, the analyses rely on the assumption that psychic distance scores and cultural distance indices remain constant over time. Psychic distance scores calculated at different points in time, perhaps spanning decades, would account for variations in perceived differences and difficulties over time, providing interesting insight on what contributes to reducing or enhancing perceived differences and difficulties. Third, cultural distance was calculated using data from the World Values Survey and the European Values Study to replicate Hofstede's cultural dimensions. For that reason, any limitations present in those original studies and frameworks carry over to the current study.

5.5.3 Avenues for further research

The results of this chapter offer promising avenues for further research in a number of directions. First, they suggest that integrating psychic distance in FDI studies may provide additional insight for studies aiming to have a better grasp of what drives FDI. As such, the impact of psychic distance could be extended to other types of international investment as well (beyond the scope of FDI outstock and location choice). Second, they demonstrate that psychic distance is a multifaceted concept (here, perceived differences and perceived difficulties), with varying consequences on MNE activity. Future research should reveal additional dimensions of psychic distance and explore the consequences each has on a variety of IB issues (location choice, entry mode, expatriates well-being, etc.), but also whether they are static or dynamic, possibly drawing from the typology of animosity in cross-cultural psychology: either situational or stable, and either national or personal (Jung et al., 2002), and from tourism research (country/destination image), distinguishing between pre-, post- and non-visit in the country (Beerli and Martin, 2004; Cherifi et al., 2014). Third, the distance literature could delve into explaining the discrepancy or mismatch between objective and perceived

distances and what the consequences of such mismatch are on different IB phenomena.

Table 5.3. Gravity models of trade including psychic distance scores.

	Dependent variable:					
	FDI_OUTSTOCK					
	(1)	(2)	(3)	(4)	(5)	(6)
PDR_w_ALL			−0.065		−0.217***	−0.198***
			(0.063)		(0.071)	(0.074)
PDC_w_ALL				0.203***	0.291***	0.300***
				(0.055)	(0.062)	(0.063)
CULTURAL_DISTANCE_WVS_ALT						−0.315***
						(0.121)
GDP_origin	0.272***	0.042	0.032	0.051	0.024	−0.002
	(0.059)	(0.228)	(0.228)	(0.227)	(0.227)	(0.239)
GDP_destination	0.599***	0.763***	0.757***	0.758***	0.738***	0.710***
	(0.056)	(0.219)	(0.219)	(0.218)	(0.217)	(0.226)
COMMON_LANGUAGE	0.659***	−0.555***	−0.529***	−0.655***	−0.611***	−0.481**
	(0.038)	(0.195)	(0.197)	(0.196)	(0.196)	(0.207)
COMMON_BORDER	0.798***	1.252***	1.269***	1.274***	1.340***	1.196***
	(0.053)	(0.254)	(0.254)	(0.253)	(0.253)	(0.259)
FORMER_COLONY	0.966***	2.124***	2.080***	2.337***	2.280***	2.092***
	(0.058)	(0.363)	(0.365)	(0.366)	(0.365)	(0.376)
ECONOMIC_INTEGRATION_AGREEMENTS	0.077***	0.036	0.027	0.045	0.019	0.010
	(0.010)	(0.054)	(0.055)	(0.054)	(0.054)	(0.057)
GEO_DISTANCE	−0.877***	−0.885***	−0.876***	−0.889***	−0.859***	−0.709***
	(0.020)	(0.160)	(0.160)	(0.159)	(0.159)	(0.191)
TRADE	0.043***	0.402***	0.413***	0.390***	0.423***	0.448***
	(0.005)	(0.078)	(0.079)	(0.078)	(0.078)	(0.090)
Observations	47,106	1,611	1,611	1,611	1,611	1,477
R^2	0.591	0.840	0.840	0.842	0.843	0.839
Adjusted R^2	0.588	0.832	0.832	0.833	0.834	0.830
Residual Std. Error	2.136 (df = 46761)	1.608 (df = 1526)	1.608 (df = 1525)	1.601 (df = 1525)	1.597 (df = 1524)	1.606 (df = 1394)
Note:						*p<0.1; **p<0.05; ***p<0.01

Table 5.4. Gravity models of trade including alternative psychic distance and cultural distance scores.

	Dependent variable:				
	FDI_OUTSTOCK				
	(1)	(2)	(3)	(4)	(5)
PSY_DIST_HAKANSON_AMBOS		−0.036***	−0.027***	−0.045***	
		(0.004)	(0.004)	(0.004)	
CULTURAL_DISTANCE_WVS			−0.003		
			(0.058)		
CULTURAL_DISTANCE_WVS_ALT				0.163***	
				(0.046)	
PDR_raw_ALL					−0.222
					(0.211)
GDP_origin	0.042	0.324*	0.785***	0.419**	0.033
	(0.228)	(0.168)	(0.224)	(0.165)	(0.228)
GDP_destination	0.763***	0.773***	0.941***	0.977***	0.755***
	(0.219)	(0.146)	(0.190)	(0.144)	(0.219)
COMMON_LANGUAGE	−0.555***	0.278***	0.369***	0.247**	−0.533***
	(0.195)	(0.105)	(0.136)	(0.111)	(0.196)
COMMON_BORDER	1.252***	−0.251**	−0.418**	−0.214*	1.282***
	(0.254)	(0.116)	(0.167)	(0.122)	(0.255)
FORMER_COLONY	2.124***	0.433***	0.876***	0.384***	2.093***
	(0.363)	(0.147)	(0.189)	(0.136)	(0.364)
ECONOMIC_INTEGRATION_AGREEMENTS	0.036	−0.023	0.021	0.018	0.027
	(0.054)	(0.028)	(0.036)	(0.028)	(0.055)
GEO_DISTANCE	−0.885***	−0.035	−0.293***	0.091	−0.880***
	(0.160)	(0.083)	(0.111)	(0.084)	(0.160)
TRADE	0.402***	0.318***	0.270***	0.254***	0.412***
	(0.078)	(0.046)	(0.055)	(0.047)	(0.079)
Observations	1,611	5,733	2,400	4,434	1,611
R^2	0.840	0.683	0.760	0.743	0.840
Adjusted R^2	0.832	0.679	0.755	0.739	0.832
Residual Std. Error	1.608 (df = 1526)	1.856 (df = 5664)	1.620 (df = 2346)	1.680 (df = 4370)	1.608 (df = 1525)

Note: *p<0.1; **p<0.05; ***p<0.01
Model 2: alternative measure for psychic distance (Hakanson and Ambos, 2010, data
Models 3 and 4: alternative measure for psychic distance (raw coefficients instead of weighted ones; cf. Chapter 3)
Model 5: alternative measure for cultural distance (Hofstede scores instead of WVS-EVS study)

Chapter 6

Concluding remarks and future research

The goal of this thesis was to explore the nomological network of the concept of psychic distance, considered here as made up of two distinct dimensions: perceived differences (PDR) and perceived difficulties (PDC). Chapter 2 retraced its evolution and highlighted, based on a content analysis of the publications in the *Journal of International Business Studies* since 1970, four key characteristics which help distinguish psychic distance from other types of distance. Psychic distance is the only type of distance to be perceptual, individual-level, dynamic and asymmetrical. Chapter 3 assessed the relative impact of individual- and country-level determinants on both perceived differences and perceived difficulties, while controlling for team-level characteristics. Chapter 4 explored whether the assumption that an individual-level, perceptual distance only has macro-level, non-perceptual differences as antecedents is valid. Finally, Chapter 5 serves as external validation of the psychic distance scores calculated in Chapter 3, investigating the extent to which psychic distance is an antecedent of FDI outward stock. The data used in this thesis helps to combine different understandings and gives a broader view of the topic.

In line with Zaheer, Schomaker and Nachum (2012)'s calls, I reckon that psychic distance is (1) multifaceted, (2) perceptual and (3) asymmetrical in nature. First, I focus on two facets: psychic distance as perceived differences (PDR) and psychic distance as perceived difficulties (PDC); second, these scores are calculated on the basis of aggregated individual perceptions; and third, these dyadic psychic distance scores display asymmetry, similar to the psychic distance scores in Hakanson and Ambos (2010).

I find that (1) psychic distance and cultural distance are conceptually (Chapter 2) and empirically (Chapter 5) different concepts, (2) psychic distance is comprised of different dimensions (here PDR and PDC, which are lowly correlated, have different antecedents and different consequences on international activity) (Chapters 3-5), and (3) macro-level distances are only weakly correlated with psychic distance measures (Chapter 4).

Based on a content analysis spanning the publications in the *Journal*

of International Business Studies since 1970, Chapter 2 reveals how psychic distance has been conceptualized and understood over time, especially vis-à-vis cultural distance. The outcome of this analysis is (1) a better understanding of the nomological network of the concept of psychic distance as conceived by IB scholars, and (2) an assessment of key characteristics of psychic distance (individual, perceptual, dynamic, asymmetrical), which allow for a clear delineation of psychic distance towards other types of distance.

In Chapter 3, I find that country dyads hardly explain perceived differences and difficulties while team-level characteristics (notably the number of countries present on the team) and individual characteristics (especially the gender of the respondent, their cultural intelligence and their international experience) are significant predictors of perceived differences and difficulties.

In Chapter 4, I find that macro-level distances only explain dyadic psychic distance to a very limited extent (never more than 15%), for PDR (psychic distance as perceived differences) and for PDC (psychic distance as perceived difficulties). This suggests that country-to-country differences indeed are somewhat related to psychic distance but most of its variance remains unaccounted for. Psychic distances are not robustly explained by objective, macro-level distances. Besides, I find that PDR and PDC have mostly different antecedents: differences in political systems are the only common antecedent of PDR and PDC; PDR is consistently impacted by administrative, while PDC is mostly driven by cultural distance.

In Chapter 5, I find that psychic distance in the form of perceived differences (PDR) has a significant negative impact on outward FDI stock even when controlled for all of the typical gravity model effects (Anderson and Wincoop, 2003; Feenstra et al., 2001; Frankel and Rose, 2002; Kleinert and Toubal, 2010; van Bergeijk and Brakman, 2010). Results suggest that perceived differences deter FDI. Interestingly, I also find that psychic distance in the form of perceived difficulties (PDC) encourages rather than reduces FDI. The findings of this chapter show that (1) the dyadic psychic distance measures

I developed in Chapter 3 are empirically relevant to explain FDI, (2) psychic distance has clearly separable dimensions with different effects (PDR deters FDI while PDC encourages FDI), and (3) psychic and cultural distance are independently related to FDI.

The key take-aways of this thesis lie in acknowledging the importance of the personal characteristics of the respondents assessing psychic distance toward a host country. How each decision maker perceives the host location (may it be based on stereotypes, half-truths, false beliefs or assumptions, an irrational feeling of familiarity, etc.), in other words, psychic distance, is the true driver of decision-making for internationalization issues. What matters for decision-making is not so much what the environment is like, but how it is interpreted and understood.

If IB researchers keep focusing on non-perceptual macro-level distances, this amounts to considering that distances calculated between countries are relevant to study decision-making processes, and treating managers as necessarily well informed (unlimited and unbiased access to information), perfectly aware of alternatives and their associated chances of success, and as rational as possible when making international investment decisions (Aharoni, 1966). This is unrealistic. Despite our best efforts we make decisions more based on judgments and emotions rather than a carefully calculated and rational assessment of the facts (Ariely, 2008; Kahneman, 2011). We are unconsciously influenced by a cohort of cognitive biases when making decisions (see Chapter 1). Therefore, we should not shy away from understanding what really drives the decision-making processes by pretending that macro-level, non-perceptual differences are a satisfying proxy to understand internationalization-related decisions. Instead, I suggest looking at the problem with new lenses to gain insight into what really drives internationalization. There should be greater emphasis on understanding what drives individual perceptions of decision-makers. As exemplified in Baack et al. (2015), social psychology and psychology can provide valuable insights on this matter.

6.1 Contributions of the thesis

6.1.1 Theoretical contributions

In this dissertation, I treat psychic distance as a dynamic, subjective, and cognitive process, occurring at the individual level. So far, psychic distances have been considered in a close vs. far fashion. However, I suggest here that psychic distances, and evaluations of different locations at large, would be better captured by a variety of dimensions. I do not mean to completely discard the close vs. far aspect, only to complement it. These different dimensions are worth disentangling because they do not necessarily go in the same direction, and one dimension may (unconsciously) outweigh the other(s) in the decision-making process. I hope to clarify the tension between cultural and psychic distance which has been hindering theoretical development in the IB literature. The confusion between these two concepts hinders theory development and thus the relevance of studies in this area.

6.1.2 Managerial contributions

By replacing the individual at the center of the internationalization process, I hope to make decision makers more confident that they have some influence over which location and entry-mode decisions are made (and also their associated success) and that this does not solely depend on macro-level differences beyond their control. They indeed have a crucial role to play, and should acknowledge that interpretations and perceptions do matter, but as a double-edged sword: it can mean additional motivation to make it work in a certain location because s/he perceives little differences or difficulties, but it can also mean inattentional blindness to actual obstacles due to selective perception.

6.2 Limitations

This thesis is not exempt of limitations. First, in line with previous research (Hakanson and Ambos, 2010; Hakanson et al., 2016), the psychic distance scores towards one's own country of origin is set at 0, which is

questionable. This assumes spatial homogeneity (Shenkar, 2001) and considers that one does not perceive any difference or difficulty working with fellow nationals, hereby ignoring the effect the good reputation of certain countries has on forming perceptions relating to how easy it would be to work with nationals from such country.

Second, a critical aspect is that its participants are mostly students. While a student sample is considered acceptable in psychology research (Bello et al., 2009), it is deemed as not ideal in management studies since it lacks realism of corporate situations. However, the X-Culture project went through great length into designing conditions as close as possible to a corporate environment (similar task, not giving a choice who one works with) and students can be considered as "the managers of tomorrow" (Magnusson et al., 2014, p.302). Access to many cohorts of highly diverse corporate teams who would be willing to answer survey questions every week for two months would have simply been impossible. Besides, using psychic distance scores from Hakanson and Ambos (2010) instead of my PDR scores does not contrast with my main results, suggesting that this limitation does not seriously put into question the validity of my thesis. Third, another limitation of my dataset is the overrepresentation of certain countries of origin (e.g., about one-fifth of the participants come from the United States) to the detriment of others (112 countries are represented fewer than 14 times in my sample). Fortunately, given the large number of participants, a varied set of countries of origin was still available for my study.

Finally, this thesis does not take into account the dynamic nature of psychic distance, leaving part of the third call of Zaheer, Schomaker & Nachum (2012, p.25) unanswered (*"Third, we ask researchers to be cognizant of the limitations of most distance measures, and to be more thoughtful in their use. We should also try to incorporate the idea that societies evolve and therefore distances change."*). Although I did have access to cohorts of individuals spanning different years, the high proportion of missing data resulted in the possibility to calculate reliable psychic distance scores for the year 2013 only. Unfortunately, the analyses rely on the assumption that psychic distance scores and cultural

distance indices remain constant over time, which is debatable (Shenkar, 2001; Beugelsdijk et al., 2015).

6.3 Avenues for further research

Hopefully this thesis contributes to a better understanding of the nomological network of psychic distance, which thus provides fruitful avenues for further research.

Future research could focus on how different perceptions of foreign environments impact decision-making, especially, following Baack et al.'s (2015) lead, using experimental designs to further our knowledge of the individual antecedents of psychic distance, and whether, to what extent and how psychic distance can be manipulated, highlighting the role of the individual in the decision-making process associated with international investment decisions. This involves different possible projects: (1) drawing inspiration from psychology, determining which individual characteristics make an individual more or less sensible to differences or whether they are systematically appreciated more positively (e.g., do individuals scoring high on openness in the Big Five personality traits perceive smaller differences and difficulties?); (2) possibly drawing from tourism studies but also cross-cultural psychology, a keener understanding of how to modify people's perceptions of locations: primacy effect (Shteingart et al., 2013), preserved representation in change blindness (Simons et al., 2002), and confirmation bias (Kunda, 1999; Nickerson, 1998; Risen and Gilovich, 2007) can lead to an inability to revise judgment on a location, making the distance an individual perceives towards this location resistant to manipulation.

Building up on the finding that perceived distance has clearly separable dimensions with different effects (in this thesis, I consider two facets of psychic distance: PDR-perceived differences and PDC-perceived difficulties, but it does not mean that they are the only two possible ones), researchers could focus their attention on devising other dimensions of psychic distance which could provide interesting insight. Besides PDR and PDC, small vs large and positive

vs negative, psychic distance could be appreciated along different dimensions, such as easy vs. difficult to understand, similar vs. different. Some overlap may exist between these dimensions, but each location will not get the same appreciation along these dimensions by any decision maker. An individual may judge a location similar and with rules easy to understand, but not positively, maybe due to animosity issues (Jung et al., 2002; Klein, 2002) arising from previous wars or colonial links. It is very likely that some dimensions matter more for certain types of decisions and less so for other ones, and also that some people will be more sensitive to some dimensions than others (for example the case of a location considered as close, easy to understand, similar, but because of a negative personal experience in this location, the decision maker discards it; one dimension may offset the other ones). Psychic distance is a complex concept, containing different dimensions, impacted by multi-level antecedents, and occurring at different levels of analysis. It is also key in international business, with significant consequences on location choice (see Chapter 5). According to Daniel Kahneman (2011), "The world makes much less sense than you think. The coherence comes mostly from the way your mind works". It is thus crucial to have a keen understanding of what drives our subjectivity. While this thesis is a step towards a deeper understanding of this popular yet confusing concept, I do hope that bolder steps will be taken, both methodologically and conceptually, to delve into its individual, perceptual, dynamic and asymmetrical nature.

Chapter 7

Samenvatting

7.1 Inleiding

Afstanden spelen een cruciale rol in ons begrip van de dynamiek van het internationale bedrijfsleven (IB) (Beugelsdijk et al., 2018b). De afstand tussen het land van herkomst en het ontvangende land beïnvloedt het vermogen van multinationals (MNE's) om hun legitimiteit te staven (Kostova en Zaheer, 1999; Xu en Shenkar, 2002) en succesvol te zijn in het buitenland (O'Grady en Lane, 1996; Pedersen en Petersen, 2004; Sirota en Greenwood, 1971). Grotere afstanden worden geassocieerd met een grotere onzekerheid. Dit is van invloed op de beslissing om een ontvangende markt te betreden (de locatiekeuze; Kogut en Singh, 1988) en op de inzet van resources daarbij (wijze van betreding; Hosseini, 2008). De afgelopen vijftig jaar is vooral aandacht besteed aan niet-perceptuele afstanden op landniveau (zoals de culturele, administratieve, geografische of economische afstand; Ghemawat, 2001) en de invloed hiervan op de internationale expansie van bedrijven (Cuervo-Cazurra en Genc, 2008; Roy en Oliver, 2009). Hierbij wordt echter voorbijgegaan aan de individuele kenmerken van de besluitvormers, die ook van invloed zijn op de beslissingen die ze nemen. Beslissingen over internationale investeringen worden namelijk door mensen gemaakt, en niet door organisaties of landen (Daft en Weick, 1984); mensen worden hierbij beïnvloed door systematische heuristiek en hun vooroordelen waar rekening mee moet worden gehouden. Onderzoek naar individuele factoren kent veel grotere theoretische en methodologische uitdagingen dan onderzoek naar factoren op landniveau. Daarom is er in de IB-literatuur minder aandacht voor individuele factoren. Omdat het belang van afstanden op macroniveau overheerst, worden individuele factoren genegeerd. Dit kan de belangrijkste oorzaak zijn waarom empirische resultaten in onderzoek naar internationalisering meestal geen definitieve conclusies opleveren (Tihanyi et al., 2005). Ik vermoed dat er nog weinig onderzoek is gedaan naar hoe managers een grote verscheidenheid aan informatie verwerken om hun perceptie van de afstand tot het ontvangende land te vormen, hoe ze deze vermeende afstand interpreteren en waarom ze niet dezelfde markten aantrekkelijk vinden. Het is belangrijk om hier verder onderzoek naar te

doen. Gezien de gemengde empirische bevindingen over de rol die afstand bij marktkeuze speelt (Tihanyi et al., 2005; Beugelsdijk et al., 2018b), volg ik de suggestie van Dow en Karunaratna (2006) om naar de perceptuele factoren te kijken die van invloed zijn op locatiekeuze en om het concept van psychic distance te onderzoeken. In dit proefschrift ga ik in op vier belangrijke aspecten van psychic distance: het perceptuele, asymmetrische, individuele en dynamische. Psychic distance is een belangrijke factor bij het bestuderen van belangrijke investeringsbeslissingen in het internationale bedrijfsleven. Psychic distance is meer dan alleen een reflectie op individueel niveau van andere typen afstand; het kan ook een afspiegeling zijn van de persoonlijke kernmerken, ervaringen, heuristiek en cognitieve bias van managers. Het is dan ook essentieel om de macroresultaten van individuele beslissingen te begrijpen, zoals de strategieën en prestaties van bedrijven (Bobbitt en Ford, 1980; Bourgeois, 1980). Managers zijn niet allemaal even gevoelig voor uiteenlopende soorten verschillen in de ontvangende omgeving, ze kunnen bepaalde kenmerken belangrijker vinden dan andere, waardoor ze verschillen zien waar anderen die niet zien. Ze kunnen ook bepaalde verschillen als positief zien die door andere managers als negatief worden gezien. Verschillen op macroniveau hebben niet dezelfde impact op iedereen omdat ze worden waargenomen door filters en invalshoeken die uniek zijn voor elk individu. Deze filters en invalshoeken bepalen hoe we de wereld zien, hoe we deze interpreteren en dus welke beslissingen we nemen. Investeringsbeslissingen worden vaak genomen op basis van onnauwkeurige ideeën over buitenlandse markten en zijn soms nauwelijks op rationele uitgangspunten gebaseerd (Ariely, 2008; Kahneman, 2003; Simon, 1979), omdat managers niet alle beschikbare informatie verzamelen dan wel verwerken (Aharoni, 1966; Simon, 1957). Managers lopen voortdurend het risico overspoeld te worden door een teveel aan informatie en moeten kunnen vertrouwen op shortcuts om zo efficiënt mogelijk beslissingen te nemen (Shah en Oppenheimer, 2008). Hun zoektocht naar bewijzen wordt dan ook gestuurd door hun aannames en slechts een fractie van de relevante informatie bereikt hen. Deze informatie is waarschijnlijk bevooroordeeld en vertekend, maar het gemak waarmee

deze informatie toegankelijk is creëert een vals gevoel van volledigheid en nauwkeurigheid. Managementheuristiek en vooroordelen voortkomend uit begrensde rationaliteit zijn dus cruciaal bij het verantwoorden van locatiekeuzes, evenals afstanden op macroniveau en niet-perceptuele typen afstanden. Psychic distance biedt informatie die mogelijk relevant is om internationale expansie te verklaren, in aanvulling op de informatie die al beschikbaar is op basis van andere soorten afstand. Het gebrek aan duidelijke begrenzing tussen psychic distance en andere typen afstand (specifiek de culturele afstand) heeft dan ook een nadelige invloed op ons begrip van gebeurtenissen in het internationale bedrijfsleven.

7.2 Doel van het proefschrift

De huidige IB-literatuur biedt geen duidelijke conceptuele begrenzingen van de concepten psychic distance en culturele afstand (cultural distance). Ze worden vaak gezien als equivalenten, niet alleen qua gevolgen, maar soms ook zelfs qua constitutieve dimensies. Dit proefschrift moet ons begrip vergroten van het nomologisch netwerk van psychic distance (de onderscheidende kenmerken, constitutieve dimensies, antecedenten en gevolgen) en van hoe een herwaardering van psychic distance kan bijdragen aan een beter begrip van besluitvormingsprocessen in internationale investeringen. Dit proefschrift behandelt het gebrek aan een duidelijke begrenzing tussen psychic distance en culturele afstand door het nomologisch netwerk van psychic distance te schetsen en zo het onderscheid met culturele afstand te benadrukken en te concretiseren. Voor een goed begrip van het concept psychic distance (en de verschillen met culturele afstand) is grondig onderzoek vereist, niet alleen naar hoe psychic distance zich verhoudt tot andere concepten van afstand, maar ook naar de verhouding met andere concepten die interessant zijn voor wetenschappers op het gebied van het internationale bedrijfsleven.

7.3 Bijdragen en theoretische implicaties

In dit proefschrift onderzoek ik het nomologisch netwerk van psychic distance. In hoofdstuk 2 beschrijf ik hoe de individuele en perceptuele

kenmerken van het concept tussen 1956 en 2006 steeds verder zijn verdwenen, met als gevolg dat psychic distance is vervangen door culturele afstand. Sinds 2006 is er, als gevolg van nieuwe conceptuele ontwikkelingen voortkomend uit de sociale psychologie, opnieuw aandacht voor de kenmerken van psychic distance. Deze ontwikkelingen hebben niet alleen het onderscheid tussen psychic distance en andere typen afstand (met name culturele afstand) hersteld, maar ook twee aanvullende onderscheidende kenmerken duidelijk gemaakt: de dynamiek en mogelijke asymmetrie die voortkomen uit de individuele en perceptuele aard van psychic distance. De analyses in dit hoofdstuk laten zien dat psychic distance moet worden geconceptualiseerd als (1) individueel, (2) perceptueel, (3) dynamisch en (4) asymmetrisch. In de daaropvolgende hoofdstukken toon ik aan dat psychic distance een multidimensionaal concept is. Vermeende verschillen en vermeende problemen zijn twee gerelateerde, maar verschillende facetten van psychic distance die worden gekenmerkt door een lage correlatie (0,35). Ze hebben bovendien verschillende antecedenten op micro- en macroniveau en tegengestelde gevolgen op uitgaande bilaterale directe buitenlandse investeringen (dbi). Vermeende verschillen lijken dbi te ontmoedigen, wat in overeenstemming is met de heersende veronderstelling in de literatuur dat afstanden schadelijk zijn voor belangrijke investeringen en overleving, terwijl vermeende problemen juist bevorderlijk zijn voor dbi. Hoewel dit in eerste instantie misschien niet intuïtief lijkt en tegenstrijdig is met de 'minder is meer'-aanpak die meestal wordt geassocieerd met verschillende typen afstand, kan het worden verklaard door het verlangen om zoveel mogelijk controle te hebben over een ontvangende omgeving die als vijandig wordt gezien. Deze verklaring draagt ertoe bij dat er meer over deze omgeving wordt geleerd, waardoor deze na verloop van tijd beter wordt begrepen. De belangrijkste conclusie van dit proefschrift is dat het belang van de persoonlijke kenmerken van de respondenten wordt erkend die de psychic distance tot een ontvangend land beoordelen. De daadwerkelijke basis voor besluitvorming in internationalisering wordt gevormd door hoe elke besluitvormer de ontvangende locatie ziet (eventueel gebaseerd op stereotypen, halve waarheden, onjuiste overtuigingen of veronderstellingen,

een irrationeel gevoel van vertrouwdheid, enz.), oftewel de psychic distance. Voor besluitvorming is niet zozeer van belang hoe de omgeving daadwerkelijk is, maar hoe deze wordt geïnterpreteerd en begrepen.

Bibliography

Agarwal, S. and Ramaswami, S. N. (1992). Choice of Foreign Market Entry Mode: Impact of Ownership, Location and Internalization Factors. *Journal of International Business Studies*, 23(1):1–28.

Aharoni, Y. (1966). *The foreign investment decision process*. Harvard University Press.

Albaum, G. and Peterson, R. A. (1984). Empirical Research in International Marketing: 1976-1982. *Journal of International Business Studies*, 15(1):161–174.

Ali, Y. (1995). *Performance of international joint ventures (IJVs) in developing countries: a study of IJVs in Bangladesh*. University of Wollongong, New South Wales, Australia.

Allen, M. J. and Yen, W. M. (2001). *Introduction to Measurement Theory*. Waveland Pr Inc., Long Grove, IL.

Alpander, G. G. (1973). Drift to Authoritarianism: The Changing Managerial Styles of the U.S. Executives Overseas. *Journal of International Business Studies*, 4(2):1–15.

Ambos, B. and Hakanson, L. (2014). The Concept of Distance in International Management Research. *Journal of International Management*, 20(1):7–Jan.

Anand, J. and Delios, A. (1997). Location Specificity and the Transferability of Downstream Assets to Foreign Subsidiaries. *Journal of International Business Studies*, 28(3):579–604.

Anderson, E. and Gatignon, H. (1986). Models of Foreign Entry: a Transaction Cost Analysis and Propositions. *Journal of International Business Studies*, 17(3):1–27.

Anderson, J. E. (1979a). A Theoretical Foundation for Gravity Equation. *The American Economic Review*, 69(1):106–116.

Anderson, J. E. (1979b). A Theoretical Foundation for the Gravity Equation. *American Economic Review*, 69(1):106–117.

Anderson, J. E. (2001). Gravity with gravitas: A solution to the border puzzle. Working Paper 8079.

Anderson, J. E. and Wincoop, E. V. (2003). Gravity with Gravitas: a Solution to the Border Puzzle. *American Economic Review*, 93(1):170–193.

Ang, S., van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., and Chandrasekar, N. A. (2007). Cultural intelligence: its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. *Management and Organization Review*, 3(3):335–371.

Aquino, K. and Thau, S. (2009). Workplace victimization: aggression from the target's perspective. *The Annual Review of Psychology*, 60:717–741.

Ariely, D. (2008). *Predictably irrational*. HarperCollins, New York, NY.

Aronson, E. and Wilson, T. D. (2014). *Social Psychology*. Pearson Education Limited., Harlow, UK.

Arora, A. and Fosfuri, A. (2000). Wholly Owned Subsidiary Versus Technology Licensing in the Worldwide Chemical Industry. *Journal of International Business Studies*, 31(4):555–573.

Arregle, J.-L., Miller, T. L., Hitt, M. A., and Beamish, P. W. (2016). How Does Regional Institutional Complexity Affect MNE Internationalization. *Journal of International Business Studies*, 47(6):697–723.

Baack, D. W., Dow, D., Parente, R., and Bacon, D. R. (2015). Confirmation Bias in Individual-Level Perceptions of Psychic Distance: An Experimental Investigation. *Journal of International Business Studies*, 46(8):938–960.

Bacharach, S. B. (1989). Organizational Theories: some Criteria for Evaluation. *Academy of Management Review*, 14(4):496–516.

Baier, S. L., Bergstrand, J. H., and Feng, M. (2014). Economic Integration Agreements and the Margins of International Trade. *Journal of International Economics*, 93(2):339–350.

Baliga, B. R. and Jaeger, A. M. (1984). Multinational Corporations: Control Systems and Delegation Issues. *Journal of International Business Studies*, 15(2):25–41.

Balogun, E. D. (2009). *An Empirical Test of Trade Gravity Model Criteria for the West African Monetary Zone (WAMZ).* Munich Personal RePEc Archive., Munich, Germany.

Banerji, K. and Sambharya, R. B. (1996). Vertical Keiretsu and International Market Entry: The Case of the Japanese Automobile Ancillary Industry. *Journal of International Business Studies*, 27(1):89–114.

Barber, B. M. and Odean, T. (2000). Trading is Hazardous to your Wealth: The Common Stock Investment Performance of Individual Investors. *Journal of Finance*, 55(2):773–807.

Barber, B. M. and Odean, T. (2001). Boys will be Boys: Gender, Overconfidence, and Common Stock Investment. *Quarterly Journal of Economics*, 116(1):261–293.

Bargh, J. A. and Chartrand, T. L. (1999). The unberable automaticity of being. *American Psychologist*, 54(7):462–479.

Barrett, D. B. (1982). *World Christian Encyclopedia.* Oxford University Press, Nairobi.

Beck, T., Clarke, G., Groff, A., Keefer, P., and Walsh, P. (2001). New tools in comparative political economy: the database of political institutions. *The World Bank Economic Review*, 15(1):165–176.

Beckerman, W. (1956). Distance and the Pattern of Intra-European Trade. *The Review of Economics and Statistics*, 38(1):31–40.

Beerli, A. and Martin, J. D. (2004). Factors influencing destination image. *Annals of Tourism Research*, 31(3):657–681.

Bello, D., Leung, K., Radebaugh, L., Tung, R. L., and van Witteloostuijn, A. (2009). Student samples in international business research. *Journal of International Business Studies*, 40(3):361–364.

Belsey, D., Kuh, E., and Welsh, R. (1980). *Regression diagnostics: idenfitying influential data and sources of multicollinearity*. Wiley, New York, NY.

Belsley, D. A., Kuh, E., and Welsch, R. E. (1980). *Regression diagnostics*. Wiley.

Benito, G. R. G. and Gripsrud, G. (1992a). The Expansion of Foreign Direct Investments: Discrete Rational Location Choices or a Cultural Learning Process. *Journal of International Business Studies*, 23(3):461–477.

Benito, G. R. G. and Gripsrud, G. (1992b). The Expansion of Foreign Direct Investments: Discrete Rational Location Choices or a Cultural Learning Process? *Journal of International Business Studies*, 23(3):461–476.

Bergstrand, J. H. (1985). The Gravity Equation in International Trade: Some Microeconomic Foundations and Empirical Evidence. *The Review of Economics and Statistics*, 67(3):474–481.

Bergstrand, J. H. (1989). The Generalized Gravity Equation, Monopolistic Competition, and the Factor-Proportions Theory in International Trade. *The Review of Economics and Statistics*, 71(1):143–153.

Bergstrand, J. H. (2015). Economic Integration Agreements Database. https://www3.nd.edu/jbergstr/.

Berry, H., Guillen, M. F., and Zhou, N. (2010). An Institutional Approach to Cross-National Distance. *Journal of International Business Studies*, 41(9):1460–1481.

Beugelsdijk, S., Ambos, B., and Nell, P. C. (2018a). Conceptualizing and measuring distance in international business research: Recurring questions

and best practice guidelines. *Journal of International Business Studies*, 49(9):1113 – 1137.

Beugelsdijk, S., Hennart, J.-F., Slangen, A., and Smeets, R. (2010). Why and How Fdi Stocks are a Biased Measure of MNE Affiliate Activity. *Journal of International Business Studies*, 41(9):1444–1460.

Beugelsdijk, S., Kostova, T., Kunst, V. E., Spadafora, E., and van Essen, M. (2018b). Cultural Distance and Firm Internationalization: A Meta-Analytical Review and Theoretical Implications. *Journal of Management*, 44(1):89 – 130.

Beugelsdijk, S., Kostova, T., and Roth, K. (2017). An Overview of Hofstede-Inspired Country-Level Culture Research in International Business Since 2006. *Journal of International Business Studies*, 48(1):30–48.

Beugelsdijk, S., Maseland, R., and van Hoorn, A. (2015). Are scores on Hofstede's dimensions of national culture stable over time? *Global Strategy Journal*, 5(3):223–240.

Beugelsdijk, S. and Mudambi, R. (2013). Mnes as Border-Crossing Multi-Location Enterprises: The Role of Discontinuities in Geographic Space. *Journal of International Business Studies*, 44(5):413–427.

Billig, M. and Tajfel, H. (1973). Social Categorization and Similarity in Tergroup Behaviour. *European journal of social psychology*, 3(1):27–52.

Blalock H. M., J. (1968). The measurement problem: A gap between the languages of theory and research. In Blalock, H. M. and Blalock, A. B., editors, *Methodology in social research*, pages 27–May. McGraw-Hill, New York, NY.

Blum, B. S. and Goldfarb, A. (2006). Does the internet defy the law of gravity? *Journal of International Economics*, 70(2):384–405.

Bobbitt, H. R. and Ford, J. D. (1980). Decision-Maker Choice as a Determinant of Organizational Structure. *Academy of Management Review*, 5(1):13–24.

Bobko, P. and Roth, P. L. (2008). Psychometric Accuracy and (the Continuing Need for) Quality Thinking in Meta-Analysis. *Organizational Research Methods*, 11(1):114–127.

Boellis, A., Mariotti, S., Minichilli, A., and Piscitello, L. (2016). Family Involvement and Firms' Establishment Mode Choice in Foreign Markets. *Journal of International Business Studies*, 47(8):929–951.

Bohnet, I. and Zeckhauser, R. (2004). Trust, risk and betrayal. *Journal of Economic Behavior and Organization*, 55(4):467–484.

Bornstein, R. F. (1989). Exposure and Affect: Overview and Meta-Analysis of Research, 1968-1987. *Psychological Bulletin*, 106(2):265–290.

Bourgeois, L. J. (1980). Performance and Consensus. *Strategic Management Journal*, 1(3):227–249.

Brand, M., Labudda, K., and Markowitsch, H. J. (2006). Neuropsychological correlates of decision-making in ambiguous and risky situations. *Neural networks*, 19(8):1266–1276.

Brannen, M. Y. and Peterson, M. F. (2009). Merging without Alienating: Interventions Promoting Cross-Cultural Organizational Integration and their Limitations. *Journal of International Business Studies*, 40(3):468–490.

Brewer, P. A. (2007). Operationalizing Psychic Distance: a Revised Approach. *Journal of International Marketing*, 15(1):44–67.

Brooks, R., Murray, M., Salant, S., and Weise, J. C. (1999). When is the Standard Analysis of Common Property Extraction under Free Access Correct? a Game... *Journal of Political Economy*, 107(4):843–859.

Brouthers, K. D., Geisser, K. D., and Rothlauf, F. (2016). Explaining the Internationalization of Ibusiness Firms. *Journal of International Business Studies*, 47(5):513–535.

Brouthers, K. D. and Lance, E. B. (2001). Explaining the National Cultural Distance Paradox. *Journal of International Business Studies*, 32(1):177–190.

Brown, J. D. and Kobayashi, C. (2003). Introduction: Culture and the Self-Enhancement Bias. *Journal of Cross-Cultural Psychology*, 34(5):492–495.

Brun, J. F., Carrere, C., Guillaumont, P., and de Melo, J. . (2005). Has distance died? Evidence from a panel gravity model. *World Bank Economic Review*, 19(1):99–120.

Buckley, P. J. and Casson, M. (1996). An Economic Model of International Joint Venture Strategy. *Journal of International Business Studies*, 27(5):849–877.

Buckley, P. J. and Casson, M. C. (1998). Analyzing Foreign Market Entry Strategies: Extending the Internalization Approach. *Journal of International Business Studies*, 29(3):539–562.

Campbell, J. T., Eden, L., and Miller, S. R. (2012). Multinationals and Corporate Social Responsibility in Host Countries: Does Distance Matter. *Journal of International Business Studies*, 43(1):84–107.

Carley, K. M. (1997). Extracting team mental models through textual analysis. *Journal of Organizational Behavior*, 18(S1):533–558.

Carr, S. C., Rugimbana, R. O., Walkom, E., and Bolitho, F. H. (2001). Selecting expatriates in developing areas: "country-of-origin" effects in Tanzania? *International Journal of Intercultural Relations*, 25(4):441–457.

Castellani, D., Jimenez, A., and Zanfei, A. (2013). How Remote are R&D Labs? Distance Factors and International Innovative Activities. *Journal of International Business Studies*, 44(7):649–676.

Cavusgil, S. T. (1980). On the internationalization process of firms. *European Research*, 8(6):273–281.

Chang, S.-J. and Rhee, J. H. (2011). Rapid Fdi Expansion and Firm Performance. *Journal of International Business Studies*, 42(8):979–995.

Chang, S.-J. and Rosenzweig, P. M. (2001). The Choice of Entry Mode in Sequential Foreign Direct Investment. *Strategic Management Journal*, 22(8):747–777.

Cheng, C.-Y. and Leung, A. K. Y. (2013). Revisiting the Multicultural Experience Creativity Link: The Effects of Perceived Cultural Distance and Comparison Mind-Set. *Social Psychological and Personality Science*, 4(4):475–482.

Cherifi, B., Smith, A., Maitland, R., and Stevenson, N. (2014). Destination images of non-visitors. *Annals of Tourism Research*, 49:190–202.

Chidlow, A., Plakoyiannaki, E., and Welch, C. (2014). Translation in Cross-Language International Business Research: Beyond Equivalence. *Journal of International Business Studies*, 45(5):562–583.

Child, J., Ng, S. H., and Wong, C. (2002). Psychic Distance and Internationalization: Evidence from Hong Kong Firms. *International Studies of Management & Organization*, 32(1):36–56.

Chung, C. C., Park, H. Y., Lee, J. Y., and Kim, K. (2015). Human Capital in Multinational Enterprises: Does Strategic Alignment Matter. *Journal of International Business Studies*, 46(7):806–830.

Chung, W. (2001). Identifying Technology Transfer in Foreign Direct Investment: Influence of Industry Conditions and Investing Firm Motives. *Journal of International Business Studies*, 32(2):211–230.

Churchill, G. A. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research*, 16(1):64–74.

Coe, D., Subramanian, A., Tamirisa, N. T., and Bhavnani, R. (2002). The Missing Globalization Puzzle. IMF Working Paper 2171.

Coeurderoy, R. and Murray, G. (2008). Regulatory Environments and the Location Decision: Evidence from the Early Foreign Market Entries of New-Technology-Based Firms. *Journal of International Business Studies*, 39(4):670–688.

Contractor, F. J. and Kundu, S. K. (1998). Modal Choice in a World of Alliances: Analyzing Organizational Forms in the International Hotel Sector. *Journal of International Business Studies*, 29(2):325–358.

Cronbach, L. J. and Meehl, P. E. (1955). Construct Validity in Psychological Tests. *Psychological Bulletin*, 52(4):281–302.

Cuervo-Cazurra, A. (2006). Who Cares About Corruption. *Journal of International Business Studies*, 37(6):807–823.

Cuervo-Cazurra, A. (2008). The Effectiveness of Laws Against Bribery Abroad. *Journal of International Business Studies*, 39(4):634–652.

Cuervo-Cazurra, A. and Genc, M. (2008). Transforming Disadvantages into Advantages: Developing-Country MNEs in the Least Developed Countries. *Journal of International Business Studies*, 39(6):957–980.

Cuypers, I. R. P., Ertug, G., and Hennart, J.-F. (2015). The Effects of Linguistic Distance and Lingua Franca Proficiency on the Stake Taken by Acquirers in Cross-Border Acquisitions. *Journal of International Business Studies*, 46(4):429–443.

Daft, R. L. and Weick, K. E. (1984). Toward a Model of Organizations as Interpretation Systems. *Academy of Management Review*, 9(2):284–296.

Dalton, D. R. and Dalton, C. M. (2008). Meta-Analyses: some Very Good Steps Toward a Bit Longer Journey. *Organizational Research Methods*, 11(1):127–148.

Davidson, W. H. (1980). The Location of Foreign Direct Investment Activity: Country Characteristics and Experience Effects. *Journal of International Business Studies*, 11(2):9–23.

Davidson, W. H. and Mcfetridge, D. G. (1985). Key Characteristics in the Choice of International Technology Transfer Mode. *Journal of International Business Studies*, 16(2):5–22.

De Benedictis, L. and Taglioni, D. (2011). The gravity model in international trade.

De Benedictis, L. and Vicarelli, C. (2004). Trade Potentials in Gravity Panel Data Models. Working Paper No. 44.

Deardorff, A. V. (1995). *Determinants of bilateral trade: does gravity work in a neoclassical world?* National Bureau of Economic Research, Cambridge, MA.

Dellestrand, H. and Kappen, P. (2012). The Effects of Spatial and Contextual Factors on Headquarters Resource Allocation to MNE Subsidiaries. *Journal of International Business Studies*, 43(3):219–244.

Dewenter, K. L. (1995a). Are Intra-Industry Investment Patterns Consistent with Cost Disadvantages to Cross-Border Investing? Evidence from the U.S. Chemical Industry. *Journal of International Business Studies*, 26(4):843–858.

Dewenter, K. L. (1995b). Do Exchange Rate Changes Drive Foreign Direct Investment? *Journal of International Business Studies*, 26(4):843–857.

Dewenter, K. L. (1995c). Does the Market React Differently to Domestic and Foreign Takeover Announcements? Evidence from the U.S. Chemical and Retail Industries. *Journal of Financial Economics*, 37(3):421–442.

Dichtl, E., Koeglmayr, H.-G., and Mueller, S. (1990). International Orientation as a Precondition for Export Success. *Journal of International Business Studies*, 21(1):23–41.

Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*, 41:417–440.

Dikova, D., Sahib, P. R., and van Witteloostuijn, A. (2010). Cross-Border Acquisition Abandonment and Completion: The Effect of Institutional Differences and Organizational Learning in the International Business Service Industry, 1981-2001. *Journal of International Business Studies*, 41(2):223–246.

Disdier, A. C. and Head, K. (2008). The Puzzling Persistence of the Distance Effect on Bilateral Trade. *Review of Economics and Statistics*, 90(1):37–48.

Doh, J. P., Bunyaratavej, K., and Hahn, E. D. (2009). Separable but not equal: The location determinants of discrete services offshoring activities. *Journal of International Business Studies*, 40(6):926–943.

Dow, D. (2000). A Note on Psychological Distance and Export Market Selection. *Journal of International Marketing*, 8(1):51–65.

Dow, D., Cuypers, I. R. P., and Ertug, G. (2016). The Effects of Within-Country Linguistic and Religious Diversity on Foreign Acquisitions. *Journal of International Business Studies*, 47(3):319–347.

Dow, D. and Ferencikova, S. (2010). More than Just National Cultural Distance: Testing New Distance Scales on Fdi in Slovakia. *International Business Review*, 19(1):46–59.

Dow, D. and Karunaratna, A. (2006). Developing a Multidimensional Instrument to Measure Psychic Distance Stimuli. *Journal of International Business Studies*, 37(5):578–603.

Dow, D. and Larimo, J. (2008). Psychic distance, international experience and establishment mode.

Duhaime, I. M. and Schwenk, C. R. (1985). Conjectures on Cognitive Simplification in Acquisition and Divestment Decision Making. *Academy of Management Review*, 10(2):287–296.

Dunning, J. and Lundan, S. (2008). *Multinational enterprises and the global economy*, volume 70. Edward Elgar Publishing, Cheltenham, UK Northampton, MA, USA.

Dunning, J. H. (1993). Internationalizing Porter's Diamond. *MIR: Management International Review*, 33(Extensions of the Porter Diamond Framework):51–70.

Dunning, J. H. (2009). Location and the Multinational Enterprise: a Neglected Factor. *Journal of International Business Studies*, 40(1):5–20.

Dunning, J. H., Fujita, M., and Yokova, N. (2007a). Some Macro-Data on the Regionalisation/Globalisation Debate: a Comment on the Rugman/Verbeke Analysis. *Journal of International Business Studies*, 38(1):177–200.

Dunning, J. H., Pak, Y. S., and Beldona, S. (2007b). Foreign Ownership Strategies of Uk and Us International Franchisors: An Exploratory Application of Dunning's Envelope Paradigm. *International Business Review*, 16(5):531–549.

Duriau, V. J., Reger, R. K., and Pfarrer, M. D. (2007). A Content Analysis of the Content Analysis Literature in Organization Studies. *Organizational Research Methods*, 10(1):5–35.

Earley, C. E. (2003). A Note on Self-Explanation as a Training Tool for Novice Auditors: The Effects of Outcome Feedback Timing and Level of Reasoning on Performance. *Behavioral Research in Accounting*, 15:111–125.

Earley, P. C. and Ang, S. (2003). *Cultural intelligence: an analysis of individual interactions across cultures*. Stanford University Press, Palo Alto, CA.

Earley, P. C. and Mosakowski, E. (2004a). Cultural Intelligence. *Harvard Business Review*, 82(10):139–147.

Earley, P. C. and Mosakowski, E. (2004b). Toward Culture Intelligence: Turning Cultural Differences into a Workplace Advantage. *Academy of Management Executive*, 18(3):151–158.

Earley, P. C. and Peterson, R. S. (2004). The Elusive Cultural Chameleon: Cultural Intelligence as a New Approach to Intercultural Training for the Global Manager. *Academy of Management Learning & Education*, 3(1):100–116.

Eden, L. and Miller, S. (2004). Distance matters: liability of foreigness, institutional distance and ownership strategy. Bush School Working Paper 404.

Egger, P. and Pfaffermayr, M. (2004). Distance, trade and FDI: A Hausman-Taylor sur approach. *Journal of Applied Econometrics*, 19(2):227–246.

Ellis, P. (2000). Social Ties and Foreign Market Entry. *Journal of International Business Studies*, 31(3):443–470.

Ellis, P. D. (2008). Does Psychic Distance Moderate the Market Size-Entry Sequence Relationship. *Journal of International Business Studies*, 39(3):351–370.

Ellis, P. D. (2011). Social Ties and International Entrepreneurship: Opportunities and Constraints Affecting Firm Internationalization. *Journal of International Business Studies*, 42(1):99–128.

Em, L. (2014). The microfoundations of distance: insights from psychology to expand the notion of psychic distance. December 2014, in Uppsala, Sweden.

Engwall, L. and Wallenstal, M. (1988). Tit for tat in small steps: the internationalization of Swedish banks. *Scandinavian Journal of Management*, 4(3–4):147–155.

Eriksson, K. and Hadjikhani, A. (2000). Perceptual Product Connection in an International Context. *International Business Review*, 9(3):301–321.

Eriksson, K., Johanson, J., Majkgard, A., and Sharma, D. D. (1997). Experiential Knowledge and Cost in the Internationalization Process. *Journal of International Business Studies*, 28(2):337–361.

Eriksson, K., Majkgard, A., and Sharma, D. D. (2000). Path Dependence and Knowledge Development in the Internationalization Process. *MIR: Management International Review*, 40(4):307–328.

Erramilli, M. K. (1991). The Experience Factor in Foreign Market Entry Behavior of Service Firms. *Journal of International Business Studies*, 22(3):479–502.

Erramilli, M. K., Agarwal, S., and Kim, S.-S. (1997). Are Firm-Specific Advantages Location-Specific Too. *Journal of International Business Studies*, 28(4):735–758.

Estrin, S., Baghdasaryan, D., and Meyer, K. E. (2009). The Impact of Institutional and Human Resource Distance on International Entry Strategies. *Journal of Management Studies*, 46(7):1171–1197.

Evans, J. and Mavondo, F. T. (2002). Psychic Distance and Organizational Performance: An Empirical Examination of International Retailing Operations. *Journal of International Business Studies*, 33(3):515–533.

Evans, J., Mavondo, F. T., and Bridson, K. (2008). Psychic Distance: Antecedents, Retail Strategy Implications, and Performance Outcomes. *Journal of International Marketing*, 16(2):32–64.

Evans, J., Treadgold, A., and Mavondo, F. T. (2000). Psychic Distance and the Performance of International Retailers. *International Marketing Review*, 17:373–392.

Fayerweather, J. (1994). A Personal Odyssey Through the Early Evolution of International Business Pedagogy, Research and Professional Organization. *Journal of International Business Studies*, 25(1):1–45.

Feenstra, R. C., Markusen, J. R., and Rose, A. K. (2001). Using the Gravity Equation to Differentiate among Alternative Theories of Trade. *The Canadian Journal of Economics*, 34(2):430–447.

Filatotchev, I., Strange, R., Piesse, J., and Lien, Y.-C. (2007). Fdi by Firms from Newly Industrialised Economies in Emerging Markets: Corporate Governance, Entry Mode and Location. *Journal of International Business Studies*, 38(4):556–573.

Fletcher, R. and Bohn, J. (1998). The Impact of Psychic Distance on the Internationalisation of the Australian Firm. *Journal of Global Marketing*, 12(2):47–68.

Flores, R. G. and Aguilera, R. V. (2007). Globalization and Location Choice: An Analysis of Us Multinational Firms in 1980 and 2000. *Journal of International Business Studies*, 38(7):1187–1211.

Frankel, J. and Rose, A. (2002). An Estimate of the Effect of Common Currencies on Trade and Income. *Quarterly Journal of Economics*, 117(2):437–467.

Frankel, J. A., Kackmeister, A., Stein, E., and Wei, S. J. (1996). Regional trading blocs. The institute for international economics.

Friedman, T. L. (2005). *The World Is Flat: A Brief History of the Twenty-First Century*. Farrar, Strauss and Giroux, New York, NY.

Frost, T. S. and Zhou, C. (2005). R&D Co-Practice and 'reverse' Knowledge Integration in Multinational Firms. *Journal of International Business Studies*, 36(6):676–688.

Galchenko, I. and van de Vijver, F. J. R. (2007). The role of perceived cultural distance in the acculturation of exchange students in Russia. *International Journal of Intercultural Relations*, 31(2):181–197.

Ghemawat, P. (2001). Distance Still Matters. the Hard Reality of Global Expansion. *Harvard Business Review*, 79(8):137–146.

Gillespie, K., Riddle, L., Sayre, E., and Sturges, D. (1999). Diaspora Interest in Homeland Investment. *Journal of International Business Studies*, 30(3):623–635.

Globerman, S. and Shapiro, D. (2003). Governance Infrastructure and Us Foreign Direct Investment. *Journal of International Business Studies*, 34(1):19–40.

Goerzen, A., Asmussen, C. G., and Nielsen, B. B. (2013). Global Cities and Multinational Enterprise Location Strategy. *Journal of International Business Studies*, 44(5):427–451.

Goerzen, A. and Beamish, P. W. (2003). Geographic Scope and Multinational Enterprise Performance. *Strategic Management Journal*, 24(13):1289–1307.

Goerzen, A. and Makino, S. (2007). Multinational Corporation Internationalization in the Service Sector: a Study of Japanese Trading Companies. *Journal of International Business Studies*, 38(7):1149–1170.

Goldberg, L. R. (1993). The structure of phenotypic personality traits. *American Psychologist*, 48:26–34.

Gomes, L. and Ramaswamy, K. (1999). An Empirical Examination of the Form of the Relationship Between Multinationality and Performance. *Journal of International Business Studies*, 30(1):173–188.

Gomes-Casseres, B. (1990). Firm Ownership Preferences and Host Government Restrictions: An Integrated Approach. *Journal of International Business Studies*, 21(1):1–23.

Gomez-Mejia, L. R. and Palich, L. E. (1997). Cultural Diversity and the Performance of Multinational Firms. *Journal of International Business Studies*, 28(2):309–336.

Gonzalez-Perez, M. A., Velez-Calle, A., Cathro, V., Caprar, D. V., and Taras, V. (2014). Virtual Teams and International Business Teaching and Learning: The Case of the Global Enterprise Experience (GEE). *Journal of Teaching in International Business*, 25(special issue):200–213.

Gooris, J. and Peeters, C. (2014). Home Host Country Distance in Offshore Governance Choices. *Journal of International Management*, 20(1):73–86.

Gordillo, D. M., Stokenberga, A., and Schwartz, J. (2010). *Central America's Intra and Extra-Regional Trade Potential: A Gravity Model Approach to Understanding Regional Integration*. Economics Unit, LCSSD, The World Bank.

Graebner, M. E., Lumineau, F., and Fudge Kamal, D. (2018). Unrequited: Asymmetry in interorganizational trust. *Strategic Organization*, 0(0):13–Jan.

Gray, B. J. (1997). Profiling Managers to Improve Export Promotion Targeting. *Journal of International Business Studies*, 28(2):387–421.

Griffith, D. A. and Harvey, M. G. (2001). Executive Insights: An Intercultural Communication Model for Use in Global Interorganizational Networks. *Journal of International Marketing*, 9(3):87–104.

Grimes, J. E. and Grimes, B. F. (1996). Ethnologue Language Family Index. https://www.ethnologue.com/13/.

Habib, M. and Zurawicki, L. (2002). Corruption and Foreign Direct Investment. *Journal of International Business Studies*, 33(2):291–308.

Hahn, T., Preuss, L., Pinkse, J., and Figge, F. (2014). Cognitive Frames in Corporate Sustainability: Managerial Sensemaking with Paradoxical and Business Case Frames. *Academy of Management Review*, 39(4):463–488.

Hakanson, L. and Ambos, B. (2010). The antecedents of psychic distance. *Journal of International Management*, 16(3):195–210.

Hakanson, L., Ambos, B., Schuster, A., and Leicht-Deobald, U. (2016). The Psychology of Psychic Distance: Antecedents of Asymmetric Perceptions. *Journal of World Business*, 51(2):308–319.

Hakanson, L. and Dow, D. (2012). Markets and Networks in International Trade: On the Role of Distances in Globalization. *Management International Review*, 52(6):761–789.

Hakanson, L. and Kappen, P. (2017). The 'casino model' of internationalization: An alternative uppsala paradigm. *Journal of International Business Studies*.

Hamel, G. (1991). Competition for Competence and Inter-Partner Learning Within International Strategic Alliances. *Strategic Management Journal*, 12:83–104.

Haney, W., Russell, M., Gulek, C., and Fierros, E. (1998). Drawing on Education: Using Student Drawings To Promote Middle School Improvement. *Schools in the Middle*, 7(3):38–43.

Hang, H. and Godley, A. (2009). Revisiting the psychic distance paradox: International retailing in China in the long run (1840 2005). *Business History*, 51(3):383–400.

Hanson, G. H. and Xiang, C. (2004). The Home-Market Effect and Bilateral Trade Patterns. *American Economic Review*, 94(4):1108–1130.

Harpaz, I. (1990). The Importance of Work Goals: An International Perspective. *Journal of International Business Studies*, 21(1):75–94.

Harzing, A.-W. (2004). The role of culture in entry-mode studies: from neglect to myopia? *Advances in international management*, 15:75–127.

Harzing, A.-W., Koster, K., and Magner, U. (2011). Babel in Business: The Language Barrier and Its Solutions in the Hq-Subsidiary Relationship. *Journal of World Business*, 46(3):279–288.

Harzing, A. W. and Pudelko, M. (2014). Why home and host country context matters more than (cultural) distance: An empirical study.

Harzing, A.-W. and Pudelko, M. (2016). Do We Need to Distance Ourselves from the Distance Concept? Why Home and Host Country Context Might Matter More Than (Cultural) Distance. *MIR: Management International Review*, 56(1):1—34.

Hashai, N. (2011). Sequencing the Expansion of Geographic Scope and Foreign Operations by "Born Global" Firms. *Journal of International Business Studies*, 42(8):995–1016.

Hausman, J. A. (1978). Specification Tests in Econometrics. *Econometrica*, 46(6):1251–1272.

He, Z.-L. and Wong, P.-K. (2004). Exploration vs. Exploitation: An Empirical Test of the Ambidexterity Hypothesis. *Organization Science*, 15(4):481–495.

Head, K., Mayer, T., and Ries, J. (2009). How remote is the offshoring threat? *European Economic Review*, 53(4):429–444.

Heckman, J. J. (1979). Sample Selection Bias as a Specification Error. *Econometrica*, 47(1):153–162.

Helpman, E. and Razin, A. (1987). Exchange Rate Management: Intertemporal Tradeoffs. *American Economic Review*, 77(1):107–124.

Hennart, J.-F. and Larimo, J. (1998). The Impact of Culture on the Strategy of Multinational Enterprises: Does National Origin Affect Ownership Decisions. *Journal of International Business Studies*, 29(3):515–539.

Hoffman, R. C. and Gopinath, C. (1994). The Importance of International Business to the Strategic Agenda of U.S. Ceos. *Journal of International Business Studies*, 25(3):625–638.

Hofstede, G. (1980). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. SAGE, Thousand Oaks, CA.

Hofstede, G. (1983). The Cultural Relativity of Organizational Practices and Theories. *Journal of International Business Studies*, 14(2):75–90.

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. SAGE, Thousand Oaks, CA.

Hofstede, G. and Bond, M. H. (1988). The Confucius connection: from cultural roots to economic growth. *Organizational Dynamics*, 16(4):05–21.

Hofstede, G., Hofstede, G.-J., and Minkov, M. (2010). *Cultures and Organizations: Software of the Mind*. McGraw-Hill, New York, NY.

Hornell, E., Vahlne, J.-E., and F., W.-P. (1972). *Export och utlandsetableringar (Exports and foreign establishments)* . Almquist and Wicksell, Uppsala, Sweden.

Hosseini, H. (2008). Psychic distance, psychic distance paradox and behavioral economics: Modeling MNC entry behavior in foreign markets. *The Journal of Socio-Economics*, 37(3):939–948.

Hotho, J. J. (2009). Internationalization Decisions: The Effects of Country Similarities and Familiarity Perceptions. Thesis, University of Groningen, the Netherlands.

House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., and Gupta, V. (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. SAGE.

Huff, A. S. (1990). *Mapping strategic thought*. John Wiley & Sons, New York, NY.

Hutzchenreuter, T., Kleindienst, I., and Lange, S. (2014). Added Psychic Distance Stimuli and MNE Performance Performance Effects of Added Cultural, Governance, Geographic, and Economic Distance in MNEs' International Expansion. *Journal of International Management*, 20(1):38–54.

Hutzschenreuter, T., Pedersen, T., and Volberda, H. W. (2007). The Role of Path Dependency and Managerial Intentionality: a Perspective on International Business Research. *Journal of International Business Studies*, 38(7):1055–1069.

Inglehart, R. and Associates (2004). World values surveys. http://www.worldvaluessurvey.org/.

Inglehart, R. and Baker, W. E. (2000). Modernization, Cultural Change, and the Persistence of Traditional Values. *American Sociological Review*, 65(1):19–52.

Jaccard, J. and Jacoby, J. (2009). *Theory construction and model-building skills: a practical guide for social scientists* . The Guilford Press, New York, NY.

Jackson, G. and Deeg, R. (2008). Comparing Capitalisms: Understanding Institutional Diversity and Its Implications for International Business. *Journal of International Business Studies*, 39(4):540–562.

Jagannathan, R. and Kocherlakota, N. R. (1996). Why Should Older People Invest Less in Stocks Than Younger People? *Federal Reserve Bank of Minneapolis Quarterly Review*, 20(3):11—23.

Jensen, R. and Szulanski, G. (2004). Stickiness and the Adaptation of Organizational Practices in Cross-Border Knowledge Transfers. *Journal of International Business Studies*, 35(6):508–524.

Jiang, C. X., Chua, R. Y., Kotabe, M., and Murray, J. Y. (2011). Effects of Cultural Ethnicity, Firm Size, and Firm Age on Senior Executives' Trust in their Overseas Business Partners: Evidence from China. *Journal of International Business Studies*, 42(9):1150–1174.

Johanson, J. and Vahlne, J.-E. (1977). The Internationalization Process of the Firm–a Model of Knowledge Development and Increasing Foreign Market Commitments. *Journal of International Business Studies*, 8(1):25–35.

Johanson, J. and Vahlne, J.-E. (2009). The Uppsala Internationalization Process Model Revisited: From Liability of Foreignness to Liability of Outsidership. *Journal of International Business Studies*, 40(9):1411–1432.

Johanson, J. and Wiedersheim-Paul, F. (1975). The Internationalization of the Firm – Four Swedish Cases. *Journal of Management Studies*, 12(3):305–323.

Johnson, J. P., Lenartowicz, T., and Apud, S. (2006). Cross-Cultural Competence in International Business: Toward a Definition and a Model. *Journal of International Business Studies*, 37(4):525–544.

Jung, C. (1959). The Concept of the Collective Unconscious (1936). In Read, H., Fordham, M., Adler, G., and McGuire, W., editors, *The Collected Works of C. G. Jung*, volume 9. Bollingen Foundation Inc., Princeton, N. J.

Jung, K., Ang, S. H., Leong, S. M., Tan, S. J., Pornpitakpan, C., and Kau, A. K. (2002). A Typology of Animosity and Its Cross-National Validation. *Journal of Cross-Cultural Psychology*, 33(6):525–540.

Kabanoff, B. (1997). Computers can read as well as count: how computer aided text analysis can benefit organisational research? *Journal of Organizational Behavior*, 18(1):507–511.

Kahneman, D. (2003). Maps of Bounded Rationality: Psychology for Behavioral Economics. *American Economic Review*, 93(5):1449–1475.

Kahneman, D. (2011). *Thinking, Fast and Slow*. Farrar, Straus and Giroux.

Kashlak, R. J., Chandran, R., and Anthony Di Benedetto, C. (1998). Reciprocity in International Business: a Study of Telecommunications Alliances and Contracts. *Journal of International Business Studies*, 29(2):281–305.

Katsikeas, C. S., Skarmeas, D., and Bello, D. C. (2009). Developing Successful Trust-Based International Exchange Relationships. *Journal of International Business Studies*, 40(1):132–156.

Kaufmann, D. K. and Mastruzzi, A. (2009). *Governance Matters VIII: Aggregate And Individual Governance Indicators 1996-2008*. The World Bank.

Kirchmeyer, C. and Cohen, A. (1992). Multicultural groups: their performance and reactions with constructive conflict. *Group and Organization Management*, 17(2):153–170.

Kirkman, B. L., Lowe, K. B., and Gibson, C. N. (2006). A quarter of century of "Culture's Consequences": a review of empirical research incorporating Hofstede's cultural values framework. *Journal of International Business Studies*, 37(3):285–320.

Klein, J. G. (2002). Us Versus Them, or Us Versus Everyone? Delineating Consumer Aversion to Foreign Goods. *Journal of International Business Studies*, 33(2):345–364.

Kleinert, J. and Toubal, F. (2010). Gravity for FDI. *Review of International Economics*, 18(1):01–13.

Kobrin, S. J. (1976). The Environmental Determinants of Foreign Direct Manufacturing Investment: An Ex Post Empirical Analysis. *Journal of International Business Studies*, 7(2):29–43.

Kogut, B. and Singh, H. (1988). The Effect of National Culture on the Choice of Entry Mode. *Journal of International Business Studies*, 19(3):411–433.

Kohl, T. (2012). Trade agreements galore: Who, what, when, where, why, how and how much? University of Groningen, the Netherlands.

Kohler, T., Cortina, J. M., Kurtessis, J. N., and Golz, M. (2015). Are We Correcting Correctly?: Interdependence of Reliabilities in Meta-Analysis. *Organizational Research Methods*, 18(3):355–429.

Kostova, T. and Zaheer, S. (1999). Organizational Legitimacy under Conditions of Complexity: The Case of the Multinational Enterprise. *Academy of Management Review*, 24(1):64–82.

Kroeber, A. L. and Kluckhohn, C. (1952). Culture: a critical review of concepts and definitions. *Papers. Peabody Museum of Archeology and Ethnology, Harvard University*, 47(1):223.

Kunda, Z. (1999). *Social cognition: making sense of people*. MIT Press.

Kwan, L. Y. Y., Yap, S., and yue Chiu, C. (2015). Mere exposure affects perceived descriptive norms: Implications for personal preferences and trust. *Organizational Behavior and Human Decision Processes*, 129:48–58.

Kwon, S.-W., Haleblian, J., and Hagedoorn, J. (2016). In Country We Trust? National Trust and the Governance of International R&D Alliances. *Journal of International Business Studies*, 47(7):807–830.

Lamb, P., Sandberg, J., and Liesch, P. W. (2011). Small firm internationalisation unveiled through phenomenography. *Journal of International Business Studies*, 42(5):672–693.

Lavie, D. and Miller, S. R. (2008). Alliance Portfolio Internationalization and Firm Performance. *Organization Science*, 19(4):623–647.

Lawrence, R. Z., Blanke, J., Drzeniek Hanouz, M., and Moavenzadeh, J. (2008). The Global Enabling Trade Report 2008.

Lazear, E. P. (1999). Culture and Language. *Journal of Political Economy*, 107(6):95–127.

Le, A. and Singleton, K. J. (2010). An Equilibrium Term Structure Model with Recursive Preferences. *American Economic Review*, 100(2):557–562.

Leamer, E. and Levinsohn, J. (1995). International trade theory: the evidence. In Grossman, G. M. and Rogoff, K., editors, *Handbook of International Economics*, chapter 26. Elsevier.

Lee, D.-J. (1998). The Effect of Cultural Distance on the Relational Exchange Between Exporters and Importers. *Journal of Global Marketing*, 11(4):07–22.

Leibenstein, H. (1966). Shaping the World Economy: Suggestions for an International Economic Policy. by J. Tinbergen. *The Economic Journal*, 76(301):92–95.

Leonidou, L. C. and Katsikeas, C. S. (1996). The Export Development Process: An Integrative Review of Empirical Models. *Journal of International Business Studies*, 27(3):517–552.

Levy, O., Beechler, S., Taylor, S., and Boyacigiller, N. A. (2007). What We Talk About when We Talk About 'Global Mindset': Managerial Cognition in Multinational Corporations. *Journal of International Business Studies*, 38(2):231–259.

Levy-Bruhl, L. (1910). *Les fonctions mentales dans les sociétés inférieures*. Les Presses Universitaires de France, Paris.

Li, J. and Guisinger, S. (1991). Comparative Business Failures of Foreign-Controlled Firms in the United States. *Journal of International Business Studies*, 22(2):209–225.

Li, J. and Guisinger, S. (1992). The Globalization of Service Multinationals in the 'triad' Regions: Japan, Western Europe and North America. *Journal of International Business Studies*, 23(4):675–697.

Li, J. and Tang, Y. (2013). The Social Influence of Executive Hubris. *Management International Review*, 53(1):83–107.

Liang, N. and Parkhe, A. (1997). Importer Behavior: The Neglected Counterpart of International Exchange. *Journal of International Business Studies*, 28(3):495–531.

Liesch, P. W. and Knight, G. A. (1999). Information Internalization and Hurdle Rates in Small and Medium Enterprise Internationalization. *Journal of International Business Studies*, 30(2):383–395.

Linders, G. J. M. and de Groot, H. L. F. (2006). Estimation of the Gravity Equation in the Presence of Zero Flows. Tinbergen Institute, Faculty of Economics and Business Administration, Vrije Universiteit Amsterdam.

Linnemann, H. (1966). *An Econometric Study of International Trade Flows*. North Holland Publishing, Amsterdam, Netherlands.

Locke, K. D., Craig, T., Baik, K.-D., and Gohil, K. (2012). Binds and Bounds of Communion: Effects of Interpersonal Values on Assumed Similarity of Self and Others. *Journal of Personality and Social Psychology*, 103(5):879–898.

Lopez-Kidwell, V., Niven, K., and Labianca, G. (2018). Predicting workplace relational dynamics using an affective model of relationships. *Journal of Organizational Behavior*, 39:1129–1141.

Loree, D. W. and Guisinger, S. E. (1995). Policy and Non-Policy Determinants of U.S. Equity Foreign Direct Investment. *Journal of International Business Studies*, 26(2):281–300.

Luo, Y. (2002). Stimulating Exchange in International Joint Ventures: An Attachment-Based View. *Journal of International Business Studies*, 33(1):169–182.

Luo, Y. and Peng, M. W. (1999). Learning to Compete in a Transition Economy: Experience, Environment, and Performance. *Journal of International Business Studies*, 30(2):269–296.

Luo, Y. and Shenkar, O. (2006). The multinational corporation as a multilingual community: Language and organization in a global context. *Journal of International Business Studies*, 37(3):321–339.

Luo, Y., Shenkar, O., and Nyaw, M.-K. (2001). A Dual Parent Perspective on Control and Performance in International Joint Ventures: Lessons from a Developing Economy. *Journal of International Business Studies*, 32(1):41–59.

MacKenzie, S. B. (2003). The dangers of poor construct conceptualization. *Journal of the Academy of Marketing Science*, 31(3):323–326.

MacKenzie, S. B., Podsakoff, P. M., and Podsakoff, N. P. (2011). Construct Measurement and Validation Procedures in MIS and Behavioral Research: Integrating New and Existing Techniques. *MIS Quarterly*, 35:293–334.

Maddux, W. W. and Brewer, M. B. (2005). Gender differences in the relational and collective bases for trust. *Group Processes and Intergroup Relations*, 8(2):159–171.

Magnusson, P., Schuster, A., and Taras, V. (2014). A Process-Based Explanation of the Psychic Distance Paradox: Evidence from Global Virtual Teams. *Management International Review*, 54(3):283–306.

Maitland, E. and Sammartino, A. (2015). Managerial Cognition and Internationalization. *Journal of International Business Studies*, 46(7):733–761.

Makhija, M. V. and Stewart, A. C. (2002). The Effect of National Context on Perceptions of Risk: a Comparison of Planned Versus Free-Market Managers. *Journal of International Business Studies*, 33(4):737–757.

Malhotra, S. and Gaur, A. S. (2014). Spatial Geography and Control in Foreign Acquisitions. *Journal of International Business Studies*, 45(2):191–211.

Mamman, A. (1995). Expatriates' Intercultural Effectiveness: Relevant Variables and Implications. *Asia Pacific Journal of Human Resources*, 33(1):40–59.

Mantel, J. (2000). *Demographics and the funded pension system: ageing populations, mature pension funds and negative cash-flow*. Merrill Lynch, London, UK.

March, J. G. (1991). Exploration and Exploitation in Organizational Learning. *Organization Science*, 2(1):71–88.

Mariotti, S. and Piscitello, L. (1995). Information Costs and Location of Fdis Within the Host Country: Empirical Evidence from Italy. *Journal of International Business Studies*, 26(4):815–842.

Mascarenhas, B. (1986). International Strategies on Non-Dominant Firms. *Journal of International Business Studies*, 17(1):1–26.

Mayer, T. and Zignago, S. (2011). Notes on CEPII's distances measures: the GeoDist database. CEPII, Banque de France.

Maznevski, M. L. and Chudoba, K. M. (2000). Bridging Space over Time: Global Virtual Team Dynamics and Effectiveness. *Organization Science*, 11(5):473–493.

McCrae, R. R. and Terracciano, A. (2005a). Personality Profiles of Cultures: Aggregate Personality Traits. *Journal of Personality and Social Psychology*, 89(3):407–426.

McCrae, R. R. and Terracciano, A. (2005b). Universal Features of Personality Traits from the Observer's Perspective: Data from 50 Cultures. *Journal of Personality and Social Psychology*, 88(3):547–562.

McCrae, R. R., Terracciano, A., Realo, A., and Allik, J. (2007). Climatic Warmth and National Wealth: Some Culture-Level Determinants of National Character Stereotypes. *European Journal of Personality*, 21(8):953–976.

Meyer, K. E. (2001). Institutions, Transaction Costs, and Entry Mode Choice in Eastern Europe. *Journal of International Business Studies*, 32(2):357–368.

Mitra, D. and Golder, P. N. (2008). Does Academic Research Help or Hurt MBA Programs. *Journal of Marketing*, 72(5):31–50.

Mohr, A., Wang, C., and Fastoso, F. (2016). The Contingent Effect of State Participation on the Dissolution of International Joint Ventures: a Resource Dependence Approach. *Journal of International Business Studies*, 47(4):408–427.

Molloy, J. C., Chadwick, C., Ployhart, R. E., and Golden, S. J. (2011). Making Intangibles "Tangible" in Tests of Resource-Based Theory: a Multidisciplinary Construct Validation Approach. *Journal of Management*, 37(5):1496–1519.

Morosini, P., Shane, S., and Singh, H. (1998). National Cultural Distance and Cross-Border Acquisition Performance. *Journal of International Business Studies*, 29(1):137–159.

Morrow, P. C. (1983). Concept Redundancy in Organizational Research: The Case of Work Commitment. *Academy of Management Review*, 8(3):486–501.

Muethel, M. and Bond, M. H. (2013). National Context and Individual Employees' Trust of the Out-Group: The Role of Societal Trust. *Journal of International Business Studies*, 44(4):312–334.

Murray, J. Y., Gao, G. Y., Kotabe, M., and Zhou, N. (2007). Assessing Measurement Invariance of Export Market Orientation: a Study of Chinese and Non-Chinese Firms in China. *Journal of International Marketing*, 15(4):41–63.

Nachum, L. and Wymbs, C. (2005). Product Differentiation, External Economies and MNE Location Choices: M&As in Global Cities. *Journal of International Business Studies*, 36(4):415–435.

Neter, J., Wasserman, W., and Kunter, M. H. (1985). *Applied linear statistical models*. Irwin, Homewood, IL.

Newburry, W., Belkin, L. Y., and Ansari, P. (2008). Perceived Career Opportunities from Globalization: Globalization Capabilities and Attitudes Towards Women in Iran and the US. *Journal of International Business Studies*, 39(5):814–833.

Ng, K.-Y. and Earley, P. C. (2006). Culture + Intelligence: old constructs, new frontiers. *Group and Organization Management*, 31(1):4—19.

Nickerson, R. (1998). Confirmation bias: a ubiquitous phenomenon in many guises. *Review of General Psychology*, 2:175–200.

Nijssen, E. J. and Douglas, S. P. (2008). Consumer World-Mindedness, Social-Mindedness, and Store Image. *Journal of International Marketing*, 16(3):84–108.

Nocke, V. and Yeaple, S. (2008). An Assignment Theory of Foreign Direct Investment. *Review of Economic Studies*, 75(2):529–558.

Nunnally, J. C. and Bernstein, I. H. (1994). *Psychometric Theory*. McGraw-Hill, New York.

Obadia, C., Bello, D. C., and Gilliland, D. I. (2015). Effect of Exporter's Incentives on Foreign Distributor's Role Performance. *Journal of International Business Studies*, 46(8):960–984.

Odean, T. (1999). Do Investors Trade Too Much. *American Economic Review*, 89(5):1279–1299.

O'Grady, S. and Lane, H. W. (1996). The Psychic Distance Paradox. *Journal of International Business Studies*, 27(2):309–334.

Oskamp, S. (1965). Overconfidence in case-study judgments. *Journal of Consulting Psychology*, 29(3):261–265.

Oviatt, B. M. and Mcdougall, P. (1995). Global Start-Ups: Entrepreneurs on a Worldwide Stage. *Academy of Management Executive*, 9(2):30–44.

Padmanabhan, P. and Cho, K. R. (1996). Ownership Strategy for a Foreign Affiliate: An Empirical Investigation of Japanese Firms. *MIR: Management International Review*, 36(1):45–65.

Paris, L. D., Howell, J. P., Dorfman, P. W., and Hanges, P. J. (2009). Preferred Leadership Prototypes of Male and Female Leaders in 27 Countries. *Journal of International Business Studies*, 40(8):1396–1406.

Pedersen, T. and Petersen, B. (2004). Learning About Foreign Markets: Are Entrant Firms Exposed to a "Shock Effect". *Journal of International Marketing*, 12(1):103–124.

Peeters, C., Dehon, C., and Garcia-Prieto, P. (2015). The Attention Stimulus of Cultural Differences in Global Services Sourcing. *Journal of International Business Studies*, 46(2):241–252.

Peltokorpi, V. and Vaara, E. (2012). Language Policies and Practices in Wholly Owned Foreign Subsidiaries: a Recontextualization Perspective. *Journal of International Business Studies*, 43(9):808–834.

Peng, M. W., Hill, C. W. L., and Wang, D. Y. L. (2000). Schumpeterian Dynamics Versus Williamsonian Considerations: a Test of Export Intermediary Performance. *Journal of Management Studies*, 37(2):167–185.

Pfister, H.-R. and Bohm, G. (2008). The multiplicity of emotions: A framework of emotional functionsin decision making. *Judgment and Decision Making*, 3(1):1–5.

Pinto, L. H., Cabral-Cardoso, C., and Werther Jr., W. B. (2012). Adjustment elusiveness: An empirical investigation of the effects of cross-cultural adjustment on general assignment satisfaction and withdrawal intentions. *International Journal of Intercultural Relations*, 36(2):188–199.

Podsakoff, P. M., MacKenzie, S. B., and Podsakoff, N. P. (2016). Recommendations for Creating Better Concept Definitions in the Organizational, Behavioral, and Social Sciences. *Organizational Research Methods*, 19(2):159–204.

Popper, K. (2002). *The logic of scientific discovery*. Routledge, New York, NY.

Portes, R. and Rey, H. (2005). The determinants of cross-border equity flows. *Journal of International Economics*, 65(2):269–296.

Prashantham, S. and Floyd, S. W. (2012). Routine Microprocesses and Capability Learning in International New Ventures. *Journal of International Business Studies*, 43(6):544–563.

Prime, N., Obadia, C., and Vida, I. (2009). Psychic Distance in Exporter-Importer Relationships: a Grounded Theory Approach. *International Business Review*, 18(2):184–199.

Rafael, L. P., Lopez-De-Silanes, F., Shleifer, A., and Vishny, R. W. (1998). Law and Finance. *Journal of Political Economy*, 106(6):1113–1155.

Raisch, S. and Birkinshaw, J. (2008). Organizational Ambidexterity: Antecedents, Outcomes, and Moderators. *Journal of Management*, 34(3):375–410.

Rao, A. and Hashimoto, K. (1996). Intercultural Influence: a Study of Japanese Expatriate Managers in Canada. *Journal of International Business Studies*, 27(3):443–467.

Rao, A. and Schmidt, S. M. (1998). A Behavioral Perspective on Negotiating International Alliances. *Journal of International Business Studies*, 29(4):665–694.

Rauch, J. E. (1999). Networks versus markets in international trade. *Journal of International Economics*, 48(1):07–35.

Reus, T. H. and Lamont, B. T. (2009). The Double-Edged Sword of Cultural Distance in International Acquisitions. *Journal of International Business Studies*, 40(8):1298–1317.

Ricart, J. E., Enright, M. J., Ghemawat, P., Hart, S. L., and Khanna, T. (2004). New Frontiers in International Strategy. *Journal of International Business Studies*, 35(3):175–201.

Riefler, P., Diamantopoulos, A., and Siguaw, J. A. (2012). Cosmopolitan Consumers as a Target Group for Segmentation. *Journal of International Business Studies*, 43(3):285–306.

Risen, J. and Gilovich, T. (2007). *Informal logical fallacies*, pages 110–130. Cambridge University Press, robert j. sternberg and henry l. roediger edition.

Roll, R. (1986). The Hubris Hypothesis of Corporate Takeovers. *Journal of Business*, 59(2):197–216.

Ronen, S. and Shenkar, O. (1985). Clustering Countries on Attitudinal Dimensions: a Review and Synthesis. *Academy of Management Review*, 10(3):435–455.

Ronen, S. and Shenkar, O. (2013). Mapping World Cultures: Cluster Formation, Sources and Implications. *Journal of International Business Studies*, 44(9):867–898.

Rose, E. L. and Ito, K. (2008). Competitive Interactions: The International Investment Patterns of Japanese Automobile Manufacturers. *Journal of International Business Studies*, 39(5):864–880.

Roy, J.-P. and Oliver, C. (2009). International Joint Venture Partner Selection: The Role of the Host-Country Legal Environment. *Journal of International Business Studies*, 40(5):779–802.

Sampson, D. and Smith, H. (1957). A scale to measure world-minded attitudes. *The Journal of Social Psychology*, 45(1):99–106.

Sartori, G. (1984). Guidelines for concept analysis. In Sartori, G., editor, *Social science concepts: a systematic analysis*, pages 15–85. Sage Publications, Beverly Hills, CA.

Sassen, S. (2001). *The Global City: New York, London, Tokyo*. Princeton, Princeton.

Saudagaran, S. M. and Biddle, G. C. (1995). Foreign Listing Location: a Study of Mncs and Stock Exchanges in Eight Countries. *Journal of International Business Studies*, 26(2):319–342.

Schneider, M. R., Schulze-Bentrop, C., and Paunescu, M. (2010). Mapping the Institutional Capital of High-Tech Firms: a Fuzzy-Set Analysis of Capitalist Variety and Export Performance. *Journal of International Business Studies*, 41(2):246–267.

Schotter, A. and Beamish, P. W. (2013). The Hassle Factor: An Explanation for Managerial Location Shunning. *Journal of International Business Studies*, 44(5):521–545.

Schwab, D. P. (1980). Construct validity in organizational behavior. In Cummings, L. L. and Staw, B. M., editors, *Research in Organizational Behavior*, pages Mar–43. JAI Press, Greenwich, CT.

Schwartz, S. H. (1992). Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries. *Advances in Experimental Social Psychology*, 25:01–65.

Schwartz, S. H. (2007). Universalism Values and the Inclusiveness of Our Moral Universe. *Journal of Cross-Cultural Psychology*, 38(6):711–729.

Schwartz, S. H. (2011). *Values: Individual and Cultural*, pages 463–493. Cambridge University Press, f. j. r. van de vijver edition.

Sethi, D., Guisinger, S., Phelan, S., and Berg, D. (2003). Trends in Foreign Direct Investment Flows: a Theoretical and Empirical Analysis. *Journal of International Business Studies*, 34(4):315–327.

Shah, A. K. and Oppenheimer, D. M. (2008). Heuristics Made Easy: An Effort-Reduction Framework. *Psychological Bulletin*, 134(2):207–223.

Shapiro, J. M., Ozanne, J. L., and Saatcioglu, B. (2008). An Interpretive Examination of the Development of Cultural Sensitivity in International Business. *Journal of International Business Studies*, 39(1):71–88.

Shenkar, O. (2001). Cultural Distance Revisited: Towards a more Rigorous Conceptualization and Measurement of Cultural Differences. *Journal of International Business Studies*, 32(3):519–536.

Shenkar, O. and Zeira, Y. (1992). Role Conflict and Role Ambiguity of Chief Executive Officers in International Joint Ventures. *Journal of International Business Studies*, 23(1):55–76.

Shoham, A. and Albaum, G. S. (1995). Reducing the Impact of Barriers to Exporting: a Managerial Perspective. *Journal of International Marketing*, 3(4):85–106.

Shteingart, H., Neiman, T., and Loewenstein, Y. (2013). The role of first impression in operant learning. *Journal of Experimental Psychology: General*, 142:476–488.

Simon, H. A. (1957). *Models of Man.* John Wiley & Sons, New York.

Simon, H. A. (1979). Rational Decision Making in Business Organization. *American Economic Review*, 69(4):493–514.

Simonin, B. L. (1999a). Ambiguity and the Process of Knowledge Transfer in Strategic Alliances. *Strategic Management Journal*, 20(7):595–624.

Simonin, B. L. (1999b). Transfer of Marketing Know-How in International Strategic Alliances: An Empirical Investigation of the Role and Antecedents of Knowledge Ambiguity. *Journal of International Business Studies*, 30(3):463–491.

Simons, D. J., Chabris, C. F., Schnur, T., and Levin, D. T. (2002). Evidence for preserved representations in change blindness. *Consciousness and Cognition*, 11:78–97.

Singh, J. (1991). Redundancy in constructs: problem, assessment, and an illustrative example. *Journal of Business Research*, 22:255–280.

Sirota, D. and Greenwood, J. M. (1971). Understand your Overseas Work Force. *Harvard Business Review*, 49(1):53–60.

Skala, D. (2008). Overconfidence in Psychology and Finance - an Interdisciplinary Literature Review. *Bank and Credit*, 39(28386):33–50.

Slangen, A. H. L. and Beugelsdijk, S. (2010). The impact of institutional hazards on foreign multinational activity: A contingency perspective. *Journal of International Business Studies*, 41:980–995.

Smale, A., Bjorkman, I., Ehrnrooth, M., John, S., Makela, K., and Sumelius, J. (2015). Dual Values-Based Organizational Identification in Mnc Subsidiaries: a Multilevel Study. *Journal of International Business Studies*, 46(7):761–784.

Soderbom, M. (2009). Applied Econometrics Lecture 15: Sample Selection Bias Estimation of Nonlinear Models with Panel Data.

Sohn, J. H. D. (1994). Social Knowledge as a Control System: a Proposition and Evidence from the Japanese Fdi Behavior. *Journal of International Business Studies*, 25(2):295–325.

Sousa, C. M. and Bradley, F. (2005). Global markets: Does psychic distance matter? *Journal of Strategic Marketing*, 13(1):43–59.

Sousa, C. M. P. and Bradley, F. (2006). Cultural Distance and Psychic Distance: Two Peas in a Pod. *Journal of International Marketing*, 14(1):49–71.

Sousa, C. M. P. and Bradley, F. (2008). Cultural distance and psychic distance: refinements in conceptualisation and measurement. *Journal of Marketing Management*, 24(6-May):467–488.

Sousa, C. M. P., Ruzo, E., and Losada, F. (2010). The Key Role of Managers' Values in Exporting: Influence on Customer Responsiveness and Export Performance. *Journal of International Marketing*, 18(2):1–20.

Srivastava, R. K. and Green, R. T. (1986). Determinants of Bilateral Trade Flows. *The Journal of Business*, 59(4):623–640.

Stahl, G. K., Maznevski, M. L., Voigt, A., and Jonsen, K. (2010). Unraveling the Effects of Cultural Diversity in Teams: a Meta-Analysis of Research on Multicultural Work Groups. *Journal of International Business Studies*, 41(4):690–710.

Stahl, G. K. and Tung, R. L. (2014). Negative biases in the study of culture in international business: the need for positive organizational scholarship. . Paper presented at the AIB Annual Conference 2014 in Vancouver, Canada.

Stahl, G. K. and Tung, R. L. (2015). Towards a more Balanced Treatment of Culture in International Business Studies: The Need for Positive Cross-Cultural Scholarship. *Journal of International Business Studies*, 46(4):391–415.

Stahl, G. K., Tung, R. L., Kostova, T., and Zellmer-Bruhn, M. (2016). Widening the Lens: Rethinking Distance, Diversity, and Foreignness in International Business Research Through Positive Organizational Scholarship. *Journal of International Business Studies*, 47(6):621–631.

Stottinger, B. and Schlegelmilch, B. B. (1998). Explaining Export Development Through Psychic Distance: Enlightening or Elusive. *International Marketing Review*, 15(5):357–373.

Studenmund, A. H. (2001). *Using econometrics: a practical guide*. Addison-Wesley, Boston, MA, 4th edition.

Suanet, I. and van de Vijver, F. J. R. (2009). Perceived cultural distance and acculturation among exchange students in Russia. *Journal of Community and Applied Social Psychology*, 19:182–197.

Suddaby, R. (2010). Editor's Comments: Construct Clarity in Theories of Management and Organization. *Academy of Management Review*, 35(3):346–358.

Sullivan, D. (1994). Measuring the Degree of Internationalization of a Firm. *Journal of International Business Studies*, 25(2):325–343.

Sullivan, D. and Bauerschmidt, A. (1991). The "Basic Concepts" of International Business Strategy: A Review and Reconsideration. *MIR: Management International Review*, 31(Frontiers of International Business Research):111–124.

Suzuki, N. (1980). The Changing Pattern of Advertising Strategy by Japanese Business Firms in the U.S. Market: Content Analysis. *Journal of International Business Studies*, 11(3):63–73.

Swift, J. S. (1999). Cultural Closeness as a Facet of Cultural Affinity. *International Marketing Review*, 16:182–202.

Tajfel, H. (1970). Experiments in intergroup discrimination. *Scientific American*, 223(5):96–103.

Tajfel, H. (1981). *Human groups and social categories*. Cambridge University Press, Cambridge, UK.

Taras, V., Caprar, D. V., Rottig, D., Sarala, R. M., Zakaria, N., Zhao, F., Jimenez, A., Wankel, C., Weng, S. L., Minor, M. S., Bryla, P., Ordenana, X., Bode, A., Schuster, A., Vaiginiene, E., Fabian, J. F., Bathula, H., Yajnik, N., Baldegger, R., and Victor, Z. H. (2013). A Global Classroom? Evaluating the Effectiveness of Global Virtual Collaboration as a Teaching Tool in Management Education. *Academy of Management Learning & Education*, 12(3):414–436.

Taras, V., Sarala, R., Muchinsky, P., Kemmelmeier, M., Singelis, T. M., Avsec, A., Coon, H. M., Dinnel, D. L., Gardner, W., Grace, S., Hardin, E. E., Hsu, S., Johnson, J., Aygun, Z. K., Kashima, E. S., Kolstad, A., Milfont, T. L., Oetzel, J., Okazaki, S., Probst, T. M., Sato, T., Shafiro, M., Schwartz, S. J., and Sinclair, H. C. (2014). Opposite Ends of the Same Stick? Multi-Method Test of the Dimensionality of Individualism and Collectivism. *Journal of Cross-Cultural Psychology*, 45(2):213–246.

Taylor, S. E. and Brown, J. D. (1988). Illusion and Well-Being: a Social Psychological Perspective on Mental Health. *Psychological Bulletin*, 103(2):193–211.

Tenzer, H., Pudelko, M., and Harzing, A.-W. (2014). The Impact of Language Barriers on Trust Formation in Multinational Teams. *Journal of International Business Studies*, 45(5):508–536.

Tepper, B. J. and Henle, C. A. (2011). A case for recognizing distinctions among constructs that capture interpersonal mistreatment in work organizations. *Journal of Organizational Behavior*, 32:487–498.

Terpstra, V. and Yu, C.-M. (1988). Determinants of Foreign Investment of U.S. Advertising Agencies. *Journal of International Business Studies*, 19(1):33–47.

Thai, N. L. and Cateora, P. R. (1979). Opportunities for women in international business. *Business Horizons*, 22(6):21–27.

Thomas, D. C., Liao, Y., Aycan, Z., Cerdin, J.-L., Pekerti, A. A., Ravlin, E. C., Stahl, G. K., Lazarova, M. B., Fock, H., Arli, D., Moeller, M., Okimoto, T. G., and van de Vijver, F. (2015). Cultural Intelligence: a Theory-Based, Short Form Measure. *Journal of International Business Studies*, 46(9):1099–1119.

Thomas, D. E. and Grosse, R. (2001). Country-of-origin determinants of foreign direct investment in an emerging market: The case of Mexico. *Journal of International Management*, 7(1):59–79.

Thomas, G. and Maio, G. R. (2008). Man, I Feel Like a Woman: when and How Gender-Role Motivation Helps Mind-Reading. *Journal of Personality and Social Psychology*, 95(5):1165–1180.

Tihanyi, L., Griffith, D. A., and Russell, C. J. (2005). The Effect of Cultural Distance on Entry Mode Choice, International Diversification, and MNE Performance: a Meta-Analysis. *Journal of International Business Studies*, 36(3):270–284.

Tinbergen, J. (1962). *Shaping the World Economy; Suggestions for an International Economic Policy*. Twentieth Century Fund, New York, NY.

Ting, W. (1988). *Multinational risk assessment and management: strategies for investment and marketing decisions*. Quorum Books, Glendale, AZ and Westport, CT.

Tong, T. W., Alessandri, T. M., Reuer, J. J., and Chintakananda, A. (2008). How Much Does Country Matter? an Analysis of Firms' Growth Options. *Journal of International Business Studies*, 39(3):387–406.

Townsend, J. D., Yeniyurt, S., and Talay, M. B. (2009). Getting to Global: An Evolutionary Perspective of Brand Expansion in International Markets. *Journal of International Business Studies*, 40(4):539–559.

Trabold, H. (2002). Export Intermediation: An Empirical Test of Peng and Ilinitch. *Journal of International Business Studies*, 33(2):327–345.

Triandis, H. C. (1994). *Culture and Social Behavior*. McGraw-Hill, New York, NY.

Triandis, H. C. (2000). Culture and Conflict. *International Journal of Psychology*, 35(2):145–152.

Trompenaars, F. and Hampden-Turner, C. (1997). *Riding the waves of culture. Understanding cultural diversity in business*. Nicholas Brealey Publishing, London.

Trope, Y. and Liberman, N. (2010). Construal-Level Theory of Psychological Distance. *Psychological Review*, 117(2):440–463.

Tsang, E. W. K. (2004). Superstition and Decision-Making: Contradiction or Complement. *Academy of Management Executive*, 18(4):92–105.

Tsui-Auch, L. S. and Mollering, G. (2010). Wary Managers: Unfavorable Environments, Perceived Vulnerability, and the Development of Trust in Foreign Enterprises in China. *Journal of International Business Studies*, 41(6):1016–1036.

Tung, R. L. and Verbeke, A. (2010). Beyond Hofstede and Globe: Improving the Quality of Cross-Cultural Research. *Journal of International Business Studies*, 41(8):1259–1275.

Tushman, M. L. (1978). Technical Communication in r & d Laboratories: The Impact of Project Work Characteristics. *Academy of Management Journal*, 21(4):624–646.

Tversky, A. and Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211(4481):453–458.

Uhlenbruck, K. (2004). Developing Acquired Foreign Subsidiaries: The Experience of MNEs in Transition Economies. *Journal of International Business Studies*, 35(2):109–124.

UNCTAD (2007). World Investment Report 2007: Transnational Corporations, Extractive Industries and Development.

Vachani, S. (1991). Distinguishing Between Related and Unrelated International Geographic Diversification: a Comprehensive Measure of Global Diversification. *Journal of International Business Studies*, 22(2):307–323.

Vahlne, J.-E. and Johanson, J. (2017). From Internationalization to Evolution: The Uppsala Model at 40 Years. *Journal of International Business Studies*, 48(9):1087–1103.

van Bergeijk, P. A. G. and Brakman, S. (2010). *The Gravity Model in International Trade: Advances and Applications*. Cambridge University Press, Cambridge, UK.

van Hoorn, A. and Maseland, R. (2016). How Institutions Matter for International Business: Institutional Distance Effects vs Institutional Profile Effects. *Journal of International Business Studies*, 47(3):374–382.

Verbeke, A. and Greidanus, N. S. (2009). The End of the Opportunism vs Trust Debate: Bounded Reliability as a New Envelope Concept in Research on MNE Governance. *Journal of International Business Studies*, 40(9):1471–1496.

von Glinow, M. A., Shapiro, D. L., and Brett, J. M. (2004). Can We Talk, and Should We? Managing Emotional Conflict in Multicultural Teams. *Academy of Management Review*, 29(4):578–593.

Walsh, J. P. (1995). Managerial and Organizational Cognition: Notes from a Trip Down Memory Lane. *Organization Science*, 6(3):280–322.

Weber, R. P. (1990). *Basic content analysis*. Sage, Newbury Park, CA, 2 edition.

Wei, S. J. (2000). How taxing is corruption on international investors? *The Review of Economics and Statistics*, 92(1):693–713.

Weinstein, N. D. (1980). Unrealistic Optimism About Future Life Events. *Journal of Personality and Social Psychology*, 39(5):806–821.

Weitzel, U. and Berns, S. (2006). Cross-Border Takeovers, Corruption, and Related Aspects of Governance. *Journal of International Business Studies*, 37(6):786–807.

Welch, C., Piekkari, R., Plakoyiannaki, E., and Paavilainen-Mantymaki, E. (2011). Theorising from case studies: Towards a pluralist future for international business research. *Journal of International Business Studies*, 42:740–762.

Wiedersheim-Paul, F., Olson, H. C., and Welch, L. S. (1978). Pre-Export Activity: The First Step in Internationalization. *Journal of International Business Studies*, 9(1):47–59.

Williams, D. W. and Gregoire, D. A. (2015). Seeking Commonalities or Avoiding Differences? Re-Conceptualizing Distance and Its Effects on Internationalization Decisions. *Journal of International Business Studies*, 46(3):253–285.

Witt, M. A. and Lewin, A. Y. (2007). Outward Foreign Direct Investment as Escape Response to Home Country Institutional Constraints. *Journal of International Business Studies*, 38(4):579–595.

Xu, D. and Shenkar, O. (2002). Institutional Distance and the Multinational Enterprise. *Academy of Management Review*, 27(4):608–619.

Yeniyurt, S., Townsend, J. D., Cavusgil, S. T., and Ghauri, P. N. (2009). Mimetic and Experiential Effects in International Marketing Alliance Formations of Us Pharmaceuticals Firms: An Event History Analysis. *Journal of International Business Studies*, 40(2):301–321.

Yildiz, H. E. and Fey, C. F. (2016). Are the Extent and Effect of Psychic Distance Perceptions Symmetrical in Cross-Border M&As? Evidence from a Two-Country Study. *Journal of International Business Studies*, 47(7):830–858.

Zaheer, S. (1995). Overcoming the Liability of Foreignness. *Academy of Management Journal*, 38(2):341–364.

Zaheer, S., Schomaker, M. S., and Nachum, L. (2012). Distance without direction: Restoring credibility to a much-loved construct. *Journal of International Business Studies*, 43:18–27.

Zaidman, N. (2001). Cultural codes and language strategies in business communication - interactions between Israeli and Indian businesspeople. *Management Communication Quarterly*, 14(3):408–441.

Zajonc, R. (2001). Mere Exposure: A Gateway to the Subliminal. *Current directions in psychological science*, 10(6):224–228.

Zajonc, R. B. (1968). The attitudinal effects of mere exposure. *Journal of Personality and Social Psychology*, 9(2):1–27.

Zhao, H., Luo, Y., and Suh, T. (2004). Transaction Cost Determinants and Ownership-Based Entry Mode Choice: a Meta-Analytical Review. *Journal of International Business Studies*, 35(6):524–545.

Zhao, M., Park, S. H., and Zhou, N. (2014). Mnc Strategy and Social Adaptation in Emerging Markets. *Journal of International Business Studies*, 45(7):842–862.

Zwinkels, R. C. J. and Beugelsdijk, S. (2010). Gravity Equations: Workhorse or Trojan Horse in Explaining Trade and Fdi Patterns Across Time and Space. *International Business Review*, 19(1):102–116.